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LIFE AND LIMB:

Prosthetic Citizenship in Serbia

Kate Milosavljevic

PhD in Social Anthropology
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Declaration:

This thesis has been composed entirely by myself, Kate Milosavljevic, PhD candidate in Social Anthropology, at the University of Edinburgh. All work, unless otherwise specified, is my own, and has not been submitted for any other degree or professional qualification.

September the 5th, 2012

Kate Louise Milosavljevic

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prosthetic citizenship in Serbia

Kate Milosavljevic

A Dissertation submitted to the University of Edinburgh
in fulfillment of the requirements for the degree of
Doctor of Philosophy
in Social Anthropology

2012

Declaration:

I confirm that this dissertation ‘Life and Limb: Prosthetic citizenship in Serbia’, is my own work, and that the use of all material from outside sources has been properly and fully acknowledged

Kate Louise Milosavljevic
27th February 2013

Abstract:

The term ‘prosthetic’ is used increasingly across the social sciences and has taken on a theoretical life as a result of debates springing from contemporary studies of science and technology, medical anthropology and citizenship. This research considers whether the usage of ‘prosthetic’ and ‘prosthesis’ has however, become all too distanced from a grounded understanding of these terms, and is now in many ways synonymous with the term ‘cyborg’, therefore obscuring the specific relationships that prostheses represent. It asks if these terms have become a ‘catchall’ of technological subjectivities, without any basis in lived experience.

Through ethnographic research into the manufacture, marketing and usage of medical prostheses in a Serbian inpatient rehabilitation centre, as well as interviews with prosthesis manufacturers, salespeople, as well with various citizens young and old, I present a nuanced view of the way in which citizenship itself is enacted. Citizenship is also a process of augmenting the body, both explicitly, such as in the (re)construction of socially acceptable bodies who have the capacity to labour, and implicitly, such as in the process of acquiring passports and identity documents. This process of externalising, and of the distributing of elements of the self into objects and relationships outside of the biological body forms the basis of what I term prosthetic citizenship.

In my search for a grounded and ethnographically informed understanding of prostheses, and of prosthetic citizenship, key themes emerge, such as hope, normality, morality and the relationship of technology to the bodies. I find that prostheses are always sites of entanglement and paradox, but that they are also equally full of promise, and that in understanding how, why and in what capacities they are used, they emerge as capable of bridging the divide between theoretically complex abstract relationships, and the pragmatic realities of daily life.

Prologue

Growing up, my exposure to amputees and prosthetic aids was for the most part through popular media: villainous Captain Hook and other peg-legged pirates of my youth, the sinister 'one-armed man' from The Fugitive, and veteran soldiers with pinned up trouser-legs and empty sleeves during televised ANZAC services. Later, cancer claimed body parts of two of my family members (one of whom became active in the national amputees' society) and through them I gained personal exposure to the world of prostheses. I grew up knowing that one of my great uncles had been a prosthetist in Germany, only to be retrained as a cabinet maker upon arrival in Australia after World War Two (which seemed to me strangely illogical until I learned of the history of wooden limbs). Unlike many, I learned relatively early in life about residual limb and muscle pain. To this day, 'the phantoms' remain a code phrase in my family for irritability, bad moods, and periods of bed rest: no visitors welcome.

More recently, after four years of dealing with material culture in municipal museums and ten years of studying social and medical anthropology, I still find it curious that the mundane material by-products of our lives have a provenance and a story that remains for the most part untold. The histories of these objects and persons are often vernacular; too commonplace to make it into prestigious collections and museums, and yet the complex relationships that emerge when we merely scrape the surface of these products show us just how extraordinary they really are. Prostheses are for me one of these great untold histories.

The history of Serbia in some ways is also an untold in contemporary anthropological texts or at least the Serbia that I experienced on a daily basis during my fieldwork. When I was young, I learned that my biological grandfather had come from Yugoslavia; although, at the time, it might as well have been the moon. Most of my friends growing up had relatives who had come from somewhere else. In New Zealand it was almost inevitable, and so, apart from a passing interest in locating Yugoslavia on a map, I filed it away in my memory together with much other meaningless information. Then, suddenly, all too suddenly it seems, as the turn of the century loomed, like everyone else in my small sleepy provincial township, I watched in gruesome fascination as Yugoslavia tore itself apart. I vividly remember watching a current affairs programme about a teenage couple, a couple of years older than myself he Orthodox, she Muslim[1] - killed, hand in hand, trying to cross a bridge in Sarajevo, as if Shakespeare's Romeo and Juliet had been gunned down at teatime. The banality of the violence in the Balkans was dished up daily on the news and delivered into our living room at 6pm for consumption along with our dinner. The real horror of what was happening was the speed at which it could just be forgotten, switched off. Soon a muddle of countries existed where my school atlas still showed

[1] Living in Serbia, I finally learned the name of that ill-fated couple, Boško Brkić and Admira Ismić, their names forever fated to become synonymous with the sad realities of many Serb-Muslim relationships during the crisis of the nineties.

Yugoslavia to be. My 13-year-old-self was ambivalent, and more than a bit disturbed to learn that my grandfather had been Serbian - after all, on the telly, Serbs were always the bad guys.

I never met my grandfather, and knew only that my father had spoken German growing up, and that my grandparents had left Europe as Yugoslavia was still being forged from the ashes of World War Two. In fact, besides occasional teasing about my surname (Milosevic and Milosavljevic were the same name to many of my classmates) my Serbian-ness (or lack thereof) was a non-event in New Zealand. Insulated from the world, in rural southern New Zealand, it wasn't until 2003 that I met my first Serb, whom my father bought home from a conference while I was still an undergraduate student. 'Janko[2]' was desperately trying to immigrate to New Zealand to escape the 'bad situation' which, in my little corner of the Pacific, I struggled to comprehend. Their friendship remains; sometimes enthusiastic, sometimes awkward, always tinged with the disappointments of the failed attempt to remain in NZ, but they have stayed in touch to this day.

Later, married and settled in Oslo with a Norwegian husband, my name began to attract more attention. Where I had always considered myself, and been considered a 'true blue Kiwi', suddenly I found that I was (at least on paper) a much more ethnically ambiguous, and potentially East European immigrant spouse. Having exhausted job possibilities without success I decided to pursue my interest in the material culture of the body and enrolled in a PhD course in Edinburgh. Where to conduct research though...the Pacific? I couldn't justify studying so far away if my husband wasn't going to be joining me. Norway? The very place that I was trying to escape? It seemed a little counter intuitive. However, it did give me an idea. Why not go to the very place that everyone believed I came from anyway. I researched foreign anthropologists who had studied Serbia. There were precious few ethnographers to choose from. Much of the social science literature was from the political sciences, dealing with religion and identity, war crimes and history. In the end, that chance meeting five years earlier and a few key articles made up my mind, particularly Van de Port's writing on wild gypsies and obstinate others, and his reticent participants' insistence that only a Serb could know and understand a Serb (1998, 1999). I sent an email to Janko. He had contacts in the prosthetics industry. I could live with his family and his children could teach me Serbian. As quickly as I had stumbled onto the idea of Serbia, I decided I would go. Having been successful in grant applications and worked for a couple of months to raise enough capital to live on, I bid a temporary adieu to my husband and touched down into Belgrade airport late on a wet February night.

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[2] All names within this dissertation have been changed

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To my Dynamic Duo, the eminent Dr's Stefan Ecks and Rebecca Marsland - you have my eternal thanks; I am and shall remain forever in your intellectual debt, as I will to Dr Ruth Fitzgerald for installing in me a great love of medical anthropology.

Without the help, support, and not less of all, sharp eyes of Rosie Burn and Dr Stephan Milosavljevic, this work would have doubtless been all the poorer; a tangled mess of words and tenses. Nevertheless, I accept full responsibility for the mistakes herein, of which I imagine there remain a few. I also give constant thanks for a wonderful supportive group of family and friends who have stood by me regardless of my proximity. To my husband Tomas, who not only accepted my frequent departures from home for almost a three year period, but who has continually put up with my rants and raves, strange esoteric mumblings and foul moods for the last four years - jeg har ikke ord for hvor takknemlig jeg er! Lastly to Dr. Barbara Herr Hawthorn at the University of California, Santa Barbara, my gratitude, your office is easily the loveliest writing space I have ever had the privilege to use.

Over and above these thanks, I am grateful and constantly amazed by the willingness of the staff of the Bela Clinic in Belgrade and the patients within its wards, to allow me to watch, wander, interview and photograph, over the duration of my 18 months of fieldwork, likewise Rudo and Ottobock healthcare, the many prosthetists and patients who agreed to be interviewed by me, and to my colleagues and students at USEE Novi Sad. Also to Ivana, for many, many hours of Serbian classes disguised as coffee dates.

Finally, to Janko. From Balclutha to Bačka, this PhD is in many ways all down to chance meetings. What began over a beer in the backyard in New Zealand in 2004, has been incubated through my travels to Norway and Scotland, all the way to the Vojvodina. It is the hospitality of your family that made it possible. *Hvala vam puno, i svaka čast*, I'm glad that you have proof of life after the twilight zone.

LIFE AND LIMB: prosthetic citizenship in Serbia

List of figures*

Cover image: Morning Tea in the Hallway of the Bela Clinic. ©Kate Milosavljevic.

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AN INTRODUCTION

Man has become, so to speak, a god with artificial limbs. He is quite impressive when he dons all his auxiliary organs, But they have not become part of him and still give him a good deal of trouble on occasion. Distant ages will bring new and probably unimaginable great advances in this field of civilisation and so enhance his god-like nature. But in the interests of our investigations let us also remember that modern man does not feel happy with his god-like status.
Sigmund Freud - Civilisation and its discontents (1930)

'Moramo da Živimo'

We have to live.

When I began my doctoral research, it was with a feeling of expectation; a sense of setting out, as I imagine it is for all PhD students; of being both under and over prepared. It was also with a feeling of skepticism, which in many ways frames this thesis, of the ways in which a blending of popular and scholarly debate within medical anthropological literature, science and technology studies, science fiction, and the arts, have appropriated technical terms pertaining to an ontology of the body. Of these, most relevantly for my research, are the terms 'prosthesis' and 'prosthetic', which are increasingly used in all matter of settings, taken out of context, juggled about, and reinserted into text. In this form, rather than engaging with ethnographically rich understandings, these terms instead widen the divide between theory and lived experience in an endless solipsist philosophising about questions regarding the future of our relationships with the world.

As there remains a scarcity of research into physical prosthetic relationships, this dissertation aims to bring together quite disparate forms of knowledge. The fieldwork that I have undertaken serves only to reiterate the continuing need for rich ethnographic detail as new technologies appear, and as we search for ways in which to make them transparent and understandable even as they become commonplace. In this respect this dissertation is still really just the beginning of a much larger body of research, ripe for undertaking in social anthropology. Ethnography carries within it the capability to embed new technologies into lives, and I believe that many of the criticisms that have been levelled at studies of science and technology (for example that they are all too often skewed toward North American models of health consumption) can be countered by ethnographic studies of the taking up of technologies in unfamiliar settings.

So these words - we have to live: *moramo da živimo* - said first and foremost; told with a shrug and a smile (as told to me during an interview at the rehabilitative hospital where I conducted the bulk of my fieldwork), serve then as a touchstone to this thesis. It is with a description of this interview that I will start.

Sanja

Sanja was a Serb refugee from Knin in Croatia, and had lived in Belgrade for 15 years. Unlike many of the geriatric patients here at the clinic, her amputation was a traumatic injury. It was an accident, as she was climbing off a bus, the bus driver closed the door and her leg was caught[3], pinning her to the side of the bus before it drove off. In the city here, she and her husband rented a little apartment together. Both she and her husband were seventy-seven years old at the time she came here (to the institution that I henceforth call the Bela Clinic[4]), to receive her prosthesis, and begin her rehabilitation. She had been here for a month. Before this she was in another hospital for three months, and following this recuperation, she travelled to Croatia together with her husband to try to get her official papers so that she could apply for a disability allowance. Sanja was however unable to retrieve anything from the municipality in her village. In addition she found that her house has been taken over by a Croatian family. Still, she told me, if it were possible, she would like to go back to Croatia, where she grew up and both her and her husband's families come from.

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[3] Buses in Serbia are a good example of the lack of ability to take reliable functioning of state functioning as a given. At any given stop passengers pressed in, as others attempted to push out, and I was often left feeling that the drivers simply closed the doors and began to drive when they felt the bus was full.

[4] The Specialised Hospital for Prosthetic and Orthotic Rehabilitation (referred to henceforth as the Bela Clinic), is a real institution. I have chosen not to disguise its location or its name (Bela clinic is simply an easier name to contend with) as it is an immediately recognisable feature of the Belgrade landscape, and of the Serbian prosthetics industry. All persons mentioned within this dissertation, as well as their positions have however been anonymised, and their origins made less explicit.

On the day that we spoke together, Sanja had been measured and had had a plaster cast of her residual limb made, in preparation for the construction of her prosthesis to begin. She had also been to two hours of exercises in the therapy rooms known as the pre-prosthetic clinic. Since her amputation, Sanja had used a wheelchair as her only mobility aid. She told me with a sad smile that she thought that she was probably 'too old' to learn how to use a prosthesis, but that unless she tried she would never be able to return home (to the apartment in Belgrade), as there were steps to her apartment on the third floor and no elevator. She had not been back to her apartment since her accident. Her husband, also frail, was too weak to carry a wheelchair up and down the stairs. When I asked about him, Sanja told me that he was entitled to a Croatian pension due to his previous occupation, but that due to the bureaucratic and political barriers that exist between the two countries he had yet to receive it. The elderly couple had two sons who also now both lived in Belgrade, however, when I asked about them, Sanja changed subject completely and told me forcibly that the Croatian government needed to solve the problem of pensions and external Serb populations before they joined the EU. The provision of pensions, according to Sanja, is one of the promises that was made to her and to others in her situation, but so far there had been no movement on the issue. In the meantime she and her husband simply waited. While she had been at the centre, her husband had had to learn to fend for himself. She had taught him to cook, nothing fancy, mostly soup and beans. It was a 'hard time' but they could manage it, she told me. Family was clearly a difficult issue with Sanja, because as I asked about her sons a second time, if sometimes her sons' spouses prepared food for her and her husband, she switched subject again, telling me that she could't get any benefits because of her status as a Croatian national. She wanted to get this over and done with and go home. I asked where home is, and she said with her husband of course. With the pension money he *should* get, and the disability allowance that she *should* be entitled to, Sanja hopes to get a care person to come and help, but, she concedes, it will likely never happen. I must have looked a distressed by her story by this stage because she suddenly broke into an ironic grin, patting my arm in comfort. 'What can we do?' she said. 'We have to live'

We have to live. It is a reminder that although countless possibilities may exist for fruitful theory building upon ideas of prostheses, phantom limbs, prosthetic identities and amputated identities, citizens and/or states; it is in the end the way in which real people are constituted through their immediate relationships with specific and practical technologies, as well as with ideas and people (and what meanings these relationships hold for them), that is the basis for my discussion. The 'we' is complicit, for while it is both their and my experiences that ground this work, it is you the reader who interprets my musings, giving fresh meaning to the vernacular, the daily, the decidedly mundane qualities of prostheses, and the externalising of the self. Sanja, part of the Serb ethnic nation, cut of from her geographic state, was in the process of becoming a citizen again, and the relationships that were open to her to negotiate this position were dependent both on her capacity to generate physical action (for example - to get up stairs) and to negotiate the workings of cross boarder bureaucracy (to access her pension). The Bela clinic was in many ways an intermediary institution, a kind of all-mans-land, where no one was turned away. It was a space of rehabilitation, both of bodies, and of citizens.

Rather than laying out an explicit argument, I follow the themes that arise, whilst describing the ways in which 'normal,' 'hope,' and even 'health' are constructed within the field of amputation and prosthetics in my Serbian setting. I use these ideas to lead into a discussion of how these terms both frame and are framed by their disparate and at times contradictory relationship to broadly liberal-democratic economic reforms that have been ongoing in Serbia since 2001. These reforms have had an impact on the way that the prosthetics industry operates, even given the fact that state run health institutions remain cushioned to a certain extent by ongoing subsidies (Crnobrnja 2007).

So what is a prosthetic citizen, and what does it mean to be one? I take Cresswell's defining statement on this issue to be my starting point. He writes that

> prosthetic citizenship insists on the fact that bodies are part of assemblages that connect them to things such as infrastructures, laws

> and regulations, notions of place and mobility and the geographical landscape around them (2009: 271).

I hope that you will bear with my train of description, and the layout of this PhD, as it moves outwards, in much the same way as gait rehabilitation does for amputees, from the internal and individual components involved, to the external; the social and technological networks that are implicated in the creation of a prosthetic citizen. First though, to answer the question above we need to understand what a prosthesis is.

Prosthetic Roots

Many of us, myself included, tend use the words prosthetic and prosthesis interchangeably, and both come from the same Greek root: *prosthitenai,* an addition (from '*pros*' towards, and '*tithenai*' to place). In its arguably more common lay capacity, today prosthetic refers most often to a medical or cosmetic prosthesis, that is, to an artificial object in some way added on to the body, whether temporarily or as a permanent fixture. Prostheses may replace or simply augment the body. These types of prostheses are by their very nature prosthetic, perhaps accounting for the synonymity in usage.

However, the term prosthesis began its English usage in 1553, synonymous with the term *prothesis* (Wills 1995) as a term for the addition of a phoneme (a letter or syllable) to the beginning of a word, for the purposes of simplifying pronunciation. This addition still exists in the study of linguistics, where scholars note that unlike the term prefix, a prosthetic addition is a *metaplasm*[5] which does not alter the meaning of the word, instead referring a change in pronunciation and spelling. This often occurs in the transfer of a word from one language to another, such as in anglicised form of *Hrvatska* (Croatia). It is only much later that these terms crossed into the realm of the physical body.

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[5] The linguistic term for the addition of a sound to a word

So how does prosthesis, from these humble beginnings, shape our understandings of citizenship? This is the meta-question that this thesis seeks to investigate, because our understandings of the limits of ourselves clearly do shape understandings of what it means to be a citizen, on a daily basis. As to what a prosthetic citizen is, in this regard I take my lead from Cresswell (2009). I wish to argue that besides focussing on recent transformations of the nation-state, we need to expand our ideas of what how citizens are defined, from groupings of self-sufficient individual bodies bound together in obligation and privilege, to products of the 'assemblage of the body and the world' (ibid: 259). While these assemblages increasingly fall under the rubric of the 'cyborg[6]' (Haraway 1985), as I hope to explain here, this is a category that, although perhaps initially well suited to describing the hybrid nature of prosthetic people, disguises the ways in which technology is historically constituted, and has the power to disable, even as it enables us. Prostheses, after all, have been around much longer than new cyborgian descriptions of them.

Cresswell is not interested in physical medical prostheses per se, he is interested in the possibilities that are inherent in the 'incomplete project of citizenship' (ibid: 259). He investigates how citizenship itself is tied to ideas of mobility, surveillance and welfare. While Cresswell actually borrows the term 'Prosthetic Citizen' from Langan (2001), who was fundamentally concerned with issues of mobility in public transport as applied to disability rights, and more specifically, wheelchair users, he expands this concept, arguing that citizenship relies not only on the production of 'mobility as its foundation of equity', which is Langan's argument (2001: 482), but 'that mobility itself is an achievement of assemblages of people and things' (Cresswell 2009: 271). Citizenship is also demarcated as a category by the production of its inverse - non-citizens - and is itself invested in the logic of othering, the non-citizen, the non-compliant patient, the immigrant, the gendered, raced, the pathological, which then 'confirms the status as

[6] From Cybernetic Organism. Chapter 6 provides a full investigation of the origins of cyborgs and cyborg theory.

citizenship as something to be valued' (Cresswell 2009: 263). Cresswell further links identity documents and citizenship, to mobility, showing how the need for legitimate forms of identity are a result of the movement of populations, as he states,

> In a place where everyone is known from birth to death, identity is pre-given. It is only the mobile strangers arriving en-masse that provoke the need to be certain of who someone is (2009: 261).

Thus, in addition to human-technology relationships that are investigated within this thesis, the governing theme herein is a critique of the normative corporeality of the body as applied to questions of citizenship. In this respect my ethnography serves to contrast and compare the lived experience of prostheses, with what has been argued in theory. I am fully aware that what science and technology studies take as 'prosthetic' is much more loosely defined and broader in scope that this lived reality of prosthetic limbs. Nor do I wish to suggest that these terms should be limited to physical description. However, I would like to argue that an understanding of the lives of prostheses could help to ground metaphoric prostheses so that they refer to something tangible. Throughout this project I am informed by a thorough grounding in Critical Medical Anthropology, as well as an ongoing interest in the constantly evolving field of Science and Technology Studies and a lifelong enthusiasm for practices of rehabilitation.

Metzl (2010) maintains that the quantifying of these tropes of body movement and aesthetics through ideas of 'normal' or 'natural', under the rubric of 'health', allows us to 'seamlessly construct certain bodies as desirable while relegating others as obscene' (ibid: 3). What he is getting at here are the subtle and insidious ways in which the language of health creates a moral deficit, by first implying that there is a golden standard of normative body aesthetics that we should all be aiming for, and then suggesting that it is due to our individual lifestyle choices that we fall short. We are all guilty, if not of living badly, then at least of not living well enough; and through this rhetoric, we deserve what we get.

I suggest that within the prosthetics industry this golden standard of normality meshes with desirable 'enhancement' aesthetics found in popular science fiction (which are in turn appropriated in the advertising of prostheses) to create the illusion of a consumerist's dreamworld of body parts that one can select from, like the overhauling of a computer; replacing and upgrading sections. These new body components are marketed as superior to the ageing and fallible biological body: titanium teeth with shiny porcelain veneers, gravity defying silicon breasts, the plumping out and/or sculpting of the body in the name of normalcy.

It isn't that I do not find these types of bodies interesting in and of themselves, especially in relation to prosthetic aids, as they are strongly emblematic: of our fears about death and ageing, the speeding up of time through technology, as well as our obsession with the aesthetics of health. They are tied intimately to the consumption of customised products and consequentially to the idea of a customisable body. Why shouldn't a stylish and masculine Eames inspired oak veneer limb, or one of Aviya Serfaty's 'sexy and feminine' 'Outfeet[7]' (a glamorous and feminine prosthetic limb prototype marketed at specifically at women) be available for a potential client after all? The burgeoning of *avant garde* prosthesis design from students of industrial and product design provides evidence that every part of the body has its price as a commodity - though unlike double amputee and international paralympian model and sportswoman Aimee Mullins (2009), I am not quite ready to concede that buying a prosthesis is really just the same as buying a pair of glasses much less concede that many amputees would be unhappy owning 12 pairs of limbs just to maintain their jet-setting model spokeswoman lifestyle. New and upcoming designers such as Joanna Hawley[8] (who proposes the 'Eames' limb mentioned above) maintain that the 'traditional' prosthetic limbs struggle with themes such as grace, humanity and style. Most often new prototype models remain just this however, as designers struggle either to engage with the mundane daily lifestyle requirements of actual amputees, or to find prosthetists and

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[7] see http://www.aviyaserfaty.com/ for a visual of her 'outfeet' project

[8] see http://www.joannahawley.com/ for her Eames inspired prosthesis

biomechanists to work with, let alone a customer base willing to pay. The field of prosthetic limbs proves that disability paints the body with an all too different brush to enhancement.

So, this thesis takes the *possibility* of replication of the human body, which has been the subject of much scholarly debate recently, and looks at the reality of the conjuncture of machine and humans, because grafted onto much less desirable fleshy bodies, these technologies that appear so full of promise and potential, reveal themselves, as the quote from Freud suggests at the beginning of this introduction, as having a wounding capacity (Wills 1995) that always tempers the allure of replacing flesh with machine. It should not be forgotten that in later life, Freud himself wore what were, by all accounts, a succession of extremely painful prosthetic oral palates, without which he could neither speak nor eat, which he referred to as 'monsters' or 'necessary evils', lending a certain poignancy to his assertion that present day man is unhappy in his godlike character (Freud 1930).

In this regard my thesis is in many ways comparable research to Winance's (2006) study of periods of wheelchair testing among patients with neuromuscular conditions, and, like Winance, I hold that different configurations of both technological and relational fragments not only produce different state/citizen relationships, but that they also necessarily produce divergent power differentials with distinct elements as more (or less) pivotal to the process. To take Winance at her word then, it follows that in choosing to talk about prostheses in some ways throughout the body of this thesis, I have effectively closed down the possibility to talk about them in some of their many other capacities.

Our fears of being usurped by hyper-technological beings are revealed to be for the most part ungrounded when we start to investigate the actual physical capabilities of current prosthetic technologies. Originally barred from 'able-bodied' athletics competitions due to the 'advantage' of having carbon fibre prostheses, bilateral amputee sprinter Oscar

Pistorius' trainers have been known to quip "If you think having carbon-fibre legs will make you a faster sprinter, have the operation and we'll see you at the track" (McHugh 2007). The fact that Pistorius runs very fast indeed on his cheetah® limbs is not up for debate. However the cheetah model has been used by para-Olympians for at least the last 15 years. If it was only these limbs giving him an unfair advantage, surely other 'super-runners' would have surfaced before him. Could it be that he is simply a talented runner? In that case, how are his prostheses different from hyper-engineered running shoes? Will there come a day when physical prosthetic aids really do surpass the physical limits of the human body? What are the physical limits of the body? In what capabilities do we define them?

In the last 50 years, runners have shaved more that 17 seconds off the 4 minute mile, a feat in itself once deemed impossible. We know more than ever about the micro processes of optimising performance through diet, design and training. Could today's runners accomplish the feats they do without the vast sport science industry that surrounds them? Do we count our pens, cameras, cellphones and computers as prosthetic aids, extending our memory, our hearing, our ability to speak and our eyesight over vast distances as Haraway (1997) and Case (2009) suggest? What is new about our relationship to these technologies? At times it seems that these theoretical or even abstract prostheses offer the limitless potential of a body without boundaries, touted as the buzz words of cyborg anthropology - more interesting by far than actual physical prostheses, which serve mostly to remind us of what De Laet and Mol (2000) refer to as the fragility of technological networks.

Rather then hopping up onto this bandwagon, and theorising about what prosthetics could and should be in the future, I am fundamentally interested in what they can do, and are; because if, as Wills (1995), and Jain (1999) both argue, technology is fundamentally about the speeding up of time through efficiency, in the case of prostheses, the mismatch of these two has the effect of producing unstable boundaries and uncertain futures.

So this in itself, one might argue, is all rather interesting, perhaps interesting enough in itself to inform a PhD or two. So why add Serbia as a site of enquiry? The answer lies in my initial lines of inquiry. When I moved to the Vojvodina, an autonomous province in the north of Serbia in late winter 2008, my original idea was to look at the ways in which war amputees and prostheses become a visual metaphor for the past in a (post)socialist country with a history of violence and conflict. At the time I wrote,

> Memories of war and suffering in a post-conflict country exist not only at a national commemorative and collective community level but are also represented 'in the flesh'. Elaine Scarry (1985) elaborates further: 'Whether or not it is verbally memorialised, the record of war survives in the bodies, both alive and buried, of the people who were hurt there' (1985: 83). Actions and experiential events are remembered, memorialised and mythologized not only through storytelling and oral histories that reinforce citizenship and solidarity, but also in the very presence of people whose physical injuries signify their experience of conflict at a bodily level. Memories of war and violence are thus materialised in the absence of bodily limbs and the presence of prostheses (Milosavljevic 2007: 2).

I began fieldwork in a village in the endless plains of the Vojvodina, and eventually, like many of amputees who I met, the trajectory of their rehabilitation journeys led me to the Bela clinic, in Belgrade. By 2008, when I began fieldwork, this inpatient clinic contained mostly geriatric patients, the poor and the disenfranchised, as the current transitioning to a health care system more in line with Serbia's close EU neighbours, had opened a space for private prosthetists to set up shop, attracting anyone with a disposable income (or a wealth of friends, colleagues and/or relatives who could share the costs involved). I did an initial interview round with some of these prosthetists together with Janko, my contact in the industry, to get a feel for them, and through these initial meetings discovered that while they were willing to chat with me, many were fundamentally opposed to me accessing their patients[9]. The Serbian army also had its

[9] I was initially upset about this, even though Janko told me that they were likely worried about me referring their patients on to other 'better' clinics.

own rehabilitation centres which were off limits to me, thus thwarting my desire to work with war veterans. This is not to say that my initial MSc inquiry was rendered ineffectual; through it I found that the field of prostheses remains in many ways a product of war and violence, an industry so bound up in the militarisation of medicine that it is impossible to extricate one from the other. Furthermore, looking back, without these minor setbacks I might not ever even have made it to the Bela Clinic.

Making this PhD about prostheses, patients, and prosthetists in Serbia is also a way of muddying the waters where Balkan research is concerned. While there is a burgeoning body of work on Balkan identities in all their many facets, far predating the time when I was beginning my research, there were few ethnographic descriptions written by anthropologists outside the country of the kind of Serbia that I was experiencing, nor the kind that I had an interest in, primary exceptions being Van der Port (1998, 1999), on *lumpovanje*[10] and the wilderness within, Zivkovic (2000, 2007) on domestic media representations and consumption, and on Serbian forms of self irony, Jansen (2000, 2003, 2005, 2009) who writes on disparate themes, ranging from student protests, to everyday discourse, to the place of statistics in imaginations of the past, and finally, Šuber (2006) on the mythologising of time. Much was written about the country during the escalation of violence in the 1990s, and more again in the period directly following the bombing of Serbia by NATO forces in 1999. Throughout the first decade of the aftermath of the bloody violence, Increasing piles of research seemed to emerge that reinforced victim / perpetrator ideologies, investigated post traumatic stress, either at individual or state level, or (taking its lead from a German '*volk*' tradition dealing with rural / urban divides), searched for the 'authentic' *homos balkanicus* in the changing political (and geographic) landscape. Within the larger geopolitical Balkan region, however, there were signs of emerging scholarship that I could identify with; I tracked down, for instance Čolović's work on political symbols (2002), and Green's (2007) research on what she calls the Balkan fractal, which she maintains is the way that

[10] this loosely translates to 'binge' drinking, though doesn't really approximate the carnivalesque carousing with Roma peoples that it actually points to in Serbian

competing and overlapping regional ethnicities all make claims to an authentic homeland, which can then be either proven or disproved based on historical scale.

That is not to say that questions of Balkan identities are not of interest to me, simply, a more basic question arrises in this regard, why shouldn't we be able to discuss prosthesis use in Serbia? The formation of identity simply, largely, falls out of the framework of this thesis, as the possibilities to talk about the nature of prostheses and the formation of a prosthetic citizenship close down a discussion of the formation of a personal identity, and additionally, I see no reason to pigeon hole either studies of technology to specific locations, or to limit geographic regions by theme.

Instead, I wish to pick up from where Jain leaves off in 1999 in 'The prosthetic imagination: enabling and disabling the prosthesis trope', a text that I found to be increasingly important one for understanding how it is that we have come to imagine that prostheses must augment a naturally incomplete body. I wish to continue on from her final argument that despite our increasing usage of the terms prosthetic and prosthesis about psychological understanding, 'identity differences and their material consequences are simply incomprehensible through the prosthetic lens' (ibid: 50).

I cannot, and have no desire to make a claim as to the existence of a particular and singular 'prosthetic' identity, for the simple reason that within the limits of the theories laid out within this thesis, the prosthetic body is the rule rather than a variation. That is to say, prostheses work by way of structures (whether physical or linguistic) that allow for, and ease, communication. We all make use of various supportive elements - technological, relational, language based, or semiotic to 'prop up' or augment our physical selves. Wills (1995) takes language itself to be prosthetic to the body, and Mitchell and Snyder (1997, 2000) posit that just as the body has a relationship to language that cannot be normal or average, so the universal model of a body exists in a fundamentally abstract way that 'really real' bodies (which are inherently variable), will always fall short of.

If we accept that even *language* is prosthetic to one's self, this leaves me, already at this early stage of my dissertation, with a burning question. Is this dissertation a prosthesis of my own? What does it do, this text, if it not externalise and augment my thoughts into text? Time and space is collapsed, as you the reader travel with me across Serbia, and back through history, as well as into an imagined cyborg future. Even citations, jogging our memories, serve as shorthand, sending us back to texts previously read. What is this text, if not the speeding up of time itself, just as Jain (1999) imagines? Language and technology are in many ways the prostheses that we are all dependent on.

The theories and works that this book builds upon therefore require some quite lateral moves through a theoretical landscape. This might seem a rather daunting endeavour, or at the very least a weakness through scarcity of empirical evidence (in that I can only refer to my own direct experience) and scant relevant previous scholarship within this immediate theoretical area. However, in this task I prefer to see the possibility for erudition, the broad foundation of which, like the connections that I have studied, has been a process of juxtaposition - the deconstructing and reassembling of that which I consider the object of anthropological study. This serves to fuel my belief that ethnography is not only the bread and butter that anthropologists think about, but it is also good to think *with*, moreover, the same can be said for prostheses.

My field sites, within clinics and workshops, in dusty laboratories and patient wards, and shiny marketing offices, might then be considered primary spaces within a larger field. I also worked whilst in Serbia, teaching academic writing at a private university, and I feel that it would be remiss not to consider my Serbian students, colleagues and friends' desires to be 'normal', or their exclamations that Serbia was not a 'normal' country, to be as indicative of a state of affairs as the opinions of the staff and amputee patients with whom I discussed the aesthetics of normalcy within the Bela Clinic.

Ultimately, these voices of my friends, colleagues and students, whilst not 'the field' per se, are extraordinarily important. It is their musings that give richness and depth to the

otherwise amorphous discourse of ‘normal’ that would likely plunge this thesis into a geographically obscure political economy of physical disability. Likewise terms that I first met with in the clinic take on different qualities when removed from their biomedical confines, such as - ‘health’ and ‘hope’ - have been instrumental in forming the building blocks of this thesis. Looking outside of the clinic allows the use of the phrase ‘*nisi / nije normalan*’ (you’re / it’s not normal) to delineate an ontological position not yet reached, or lost. As I hope to show, this is a positioning both of oneself and of the nation which both creates and is created by very particular Serbian experience of being ‘outside’ of time. In this regard being ‘not normal’ becomes an internalised value judgment about aspects of Serbian life, that pro-European Serbian citizens compare with imagined European equivalents. These desires are articulated by Serbians as though from a European perspective - how they imagine themselves as being seen. Thus the hope for a ‘normal’ life, although not necessarily a *return* to ‘normality’ (as what and when a period of normal existed is constantly reinvented through desires for a European future) has become infused with ideas of creating action geared toward moral agency in rehabilitation (either of the self or of the nation) (Greenberg 2011), but is complicated by competing informal *veze*[11] networks that people have historically relied on for acquiring goods and services.

Prosthetic limbs are emblematic of many things, but in working with prosthetists, trawling manufacturing websites, talking with sales representatives, and watching and interviewing amputee inpatients whilst they were learning to wear and walk with prosthetic aids, I feel that I can say that they speak most potently of the specific ways that we *all* negotiate being in the world - not in the future, but very much in the present. The very tactile and material qualities that they have, and the physical skills that make all the difference in their success or failure as products, makes me suspect that cyborg anthropology, much like the marketing of limbs, focuses all too intently on the

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[11] Veze translates roughly as connections or network. These links are however familial and/or geographic, sometimes enacted the Kum (godparent) family relationships, through friends, or local community. They are networks of people who can help one get jobs, acquire visas, access the health system, buy a car, in fact, any interaction with state or private enterprise can be smoothed though the production of veze connections.

generalising and homogenising of relationships, and on the relationship of technology to time, that is to say, the speeding up of time through consuming technology (Jain 1999, Cerqui 2002). The potential that prostheses hold for overcoming life's obstacles generated by the idea of prosthetic aids and their use in praxis appear to be two very different phenomena. It is my intention to try to unpack them.

The first section of this thesis sets our scene. In 'How to look at a prosthesis', I first examine the history of the terms prosthetic and prosthesis, looking at histories of amputees and the amputated body, before showing how the prosthetics industry in Serbia is bound up in increasingly complex global trajectories of trade and exchange. In 'a (slightly abridged) history of Serbia, I lay out the field, examining and defining how these categories, themes and motifs are historically constituted.
I aim to create a 'genealogy' of amputee-prosthesis-prosthetist-therapist relationships in Serbia, which in turn serves to inform the two next chapters. I examine what desires for 'a normal life' mean in Serbia, how the types of citizenship that emerge are positioned vis-a-vis the state, as well as in relation to an abstract and universal citizen. I investigate how the loss of state integrity generates uncertainty and a stagnation of the progress of liberal democratic transitioning leads a situation described as the 'twilight zone', which is then implicated in the loss of the capacity to generate moral action.

The second section then takes these historically constituted subjects and examines them in situ within the clinic, the workshop, and the rehabilitation centre. Questions of body integrity, aesthetics, gender and mobility are of importance here. In 'Hope in Motion' I look at the spaces of the clinic, and performances of recovery, while in 'The Ghost in the machine' I look at the presence of phantom limbs, and the various readings of bodies. These two chapters place the Bela clinic experiences in Serbia into a wider context of global health practices; looking at how terms such as 'normal', and 'healthy' are both created by, and create, their own trajectories of (bio)power and (self)governance in new geopolitical hierarchies that arise through the 'Europeanising' of health care practice. This Europeanising is evidenced in a series of (somewhat mandatory) liberal economic

and social reforms that Serbia must achieve to demonstrate it's suitability to become a member of the European Union. The last chapter investigates the uneasy relationship between the daily experience of using prostheses to augment one's self, and the critiques the concept of cyborgs, seen here as a relatively recent theoretical positioning of the body's relationship alongside technological elements.

Finally, after these tangible and tactile relationships have been examined, I wish to propose that a more grounded understanding of the nature of prostheses could engage critically with ideas of 'the prosthetic', now continually emerging from within cyborg anthropology (for example, Case 2009, Cleland 2010, Howe 2011). While cyborgs are undeniably good tools for deconstructing ideas of human / non-human relationships and for thinking about the future with, I wish to argue that an anthropology of prostheses should speak with 'the force of history' (Kohrman 2005), and that the unpacking of what a prosthetic can and cannot do is a necessary precursor to qualifying a priori terms such as enhanced or disabled. The interactions that are tied up in the creation of what we call a citizen, further show that a phenomenology of personhood must be not only be inclusive of multiple human elements, but also increasingly include technological and even neurological phenomena if it is to avoid solipsism. Bodies, phantom limbs, prostheses, families, therapists, medical staff, the state, and multinational prosthetics industries are all evident in the creation of prosthetic citizens, who become truly global 'assemblages' (Collier and Ong 2005) and simultaneously state citizens. I find that cyborgs are essentially abstractions, ways of describing the uneven dispersal of technology into populations. As with hybridity, they are neither one thing nor the other, and the mixing of two tropes creates a moral ambiguity that raises tensions. I argue that we are always hybrids, and that talk of blurring boundaries assumes that at one point these categories were more solid. I do not believe that we have a new relationship to technology, rather that relationships to new technologies are always in the process of becoming normal, and that the propping up of the body into this category is an ongoing and continuously renegotiated process.

Laying out the field of literature

In 2007, at the time that I began my research, there was a slow but steady stream of social science research on prostheses and the prosthetic; Brahm and Driscoll's 'Prosthetic Territories' (1995), Wills' 'Prosthesis' - a somewhat difficult experiment in critical writing (1995), Jain's 'Prosthetic Imagination' (1999), Kurzman's somewhat barbed 'discussion' with Nelson and Wright in the periodical Cultural Anthropology (2001). Additionally, a couple of edited volumes were available; Ott, Serlin, and Mihm's seminal volume on prostheses as objects of daily life (2002), Smith and Morra's 'Prosthetic impulse' (2006), and 'Psychoprosthetics' from Gallagher, Desmond and Maclachlan (2008) are the few that spring readily to hand. Not to say that prostheses are missing from literature per se, rather that they are not often made explicit as objects of enquiry, and when they are, it is often from the perspective of an amputee as in the writings of Sobchack (1995), and Kurzman (2001, 2002). In the four years that have passed, the field of cyborg anthropology appears to have forged ahead, evidenced by a burgeoning scope of articles on cyborgs, prosthetic culture and technological lives, and yet practical prosthesis based research remains scant. Some of the more interesting writing to emerge in recent years is a PhD on phantom-prosthetic relationships from Crawford (2007), Warren and Manderson's ethnography of amputee rehabilitation clinics in Eastern Australia (2008), as well as occasional articles coming through localised university based journals, see Wright (2009).

While I thought that prosthesis based research was difficult to come by, anthropological research on amputation was limited almost entirely to G. Frank's case study of congenital limb deficiency (1986) and French's chapter on Cambodian amputees in Csordas' 'Embodiment and Experience' (1994). However, if we have been slow in anthropology to show our interest in the way 'really real' bodies attach themselves to machines, there are disciplines that have continued to produce reams of data about amputation, prostheses and rehabilitation. There is a continuing wide-ranging fascination in all facets of amputation from the disciplines of psychiatry, neurology and psychology,

including: the strategies which patients employ in order to cope with altered bodies, the prevalence of a fear of falling, psychological adjustment to limb loss, longitudinal studies of body image, investigations of Body Integrity Identity Disorder (BIID) (where a person expresses a desire to remove a biologically 'healthy' limb), and the more disturbing neurological disorder apotemnophilia (where an erotic interest in being or looking like an amputee leads in extreme cases to self-amputation) (First 2005).

Like psychological and psychiatric discussions of amputation, scientific and historical writing on the history of prostheses as the progress of technology, with or without 'social factors' taken into consideration, is plentiful, as is advice to amputees and physicians on how to cope with the news of amputation, the surgery and recovery, rehabilitation, limb fitting, fitting back into family and society roles, as well as ongoing maintenance of both stump and prosthesis. Particularly in the case of advice to amputees and physicians, much of this information is given as non-gender specific, a-cultural forms, implying that a preconceived archetypal prosthetic patient is constructed from within a biomedical model of health and rehabilitation.

It is also worth noting that discussions of physical difference are plentiful from within the increasingly interdisciplinary field of disability studies, most interestingly for me in the works of Mitchell and Snyder (1997, 2000) and Paterson and Hughes (1999). It isn't that these scholars have been unimportant to many of broadly accepted criticisms levelled at state institutions for the ways in which disabilities have been managed, nor that they have not provided the foundation of many of the terms that we now take as given in anthropology, such as social or medial models of disability; but many disability studies articles are also written in a deeply personal testimonial style that prioritises individual experience, in what might be termed a 'phenomenology' of disability (such as Murphy 1990). As Mitchell and Snyder themselves note, for many scholars in the discipline

> In stories about characters with disabilities, an underlying issue is whether their disability is the foundation of the character itself. The question is not whether disability is a cause or symptom of, or distraction from, a disturbing behavioural trait, but whether its mystery can be pierced by the storyteller (Mitchell and Snyder 2000: 6).

Not only is this a stunning good example of the use of language to prop up and prosthetize the 'deficient' body, but it also appears to be exactly what Jain (1999) proposes that we need to argue against, in that it proposes that the body being augmented is somehow naturally unnatural. In these kinds of stories we can only have individuals overcoming obstacles to achieve their potential, and in this regard I believe strongly that what is interesting for anthropological investigation about prostheses is the potential to move beyond the individual. Prosthesis based research has the ability to speak to the social, national, and to the international interests of multinational companies; to the processes of globalisation, and the increasing technologising of life as we know it, played out through bodies that not only emerge as sleek, replicable and desirable but that are also historically constituted - also fleshy, porous and fallible. An investigation of culturally embedded prosthetic citizenship allows active and engaged agents to be revealed, each of whom has their own personal social and political agenda. In this regard it is anthropologists writing about disability, aesthetics and politics to whom I have turned for erudition, most notably in regard to this thesis the works of Kohrman (2003, 2003b, 2005), Staples (2003), and Dreger (2007); in Kohrman's case, on the ways in which the classification of impairment by the state leads to the defining of disability through narrow classificatory schema, which guarantee the rights of some at the expense of others, in Staples', on the politics of display and concealment of deformity among leper communities in India, and Dreger's, on the medicalisation and subsequent scientific display of inter-sexed individuals with unusual anatomies.

Even for Mitchell and Snyder (1997, 2000), who collaborate continuously across the field of expertise on physical difference, fleshy materiality (what we might call 'lived experience') and text remain two distinct phenomena. They write:

> while an actual prosthesis is always somewhat discomforting, a textual prosthesis alleviates discomfort by removing the unsightly from view (ibid. 2000: 8).

I propose that not only is this not the case, but that a broader and more anthropological understanding of the body as a readable text and a site of social interaction could reconcile the divide between discourse and materiality, because, if we accept language as a construction of a common system of signs used in communication, then an *actual* prosthesis also alleviates discomfort, whilst simultaneously aiding the pronunciation of a difficult 'symbol' in much the same manner as a textual one. The symbol or word in question is the body itself.

People have always attached things to themselves, made tools to increase their efficiency, and adorned themselves in various ways. Additionally, people have always existed who are born with different anatomies, as have those who experience injury or accident[12]. Various ethnic groups mention deities with missing limbs, and subsequent prostheses[13]. Archaeologists have found peg legs and prosthetic toes dating back to between 900 and 300 BC, we know of the wooden hands and feet of the Middle Ages, and of knights with prosthetic components built into their armour. The vulcanised rubber, leather and ivory of the late nineteenth century is recorded in photographs and as material objects that appear from time to time in museum displays, as are the functionalist job specific workers' limbs of the post World War One period.

Later on came the acrylic and power-assisted prostheses of the mid twentieth century. Most recent are the computerised, the laser-created, the nerve-controlled, and the bone-implanted nanotechnological prostheses that have marked the last decade of both

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[12] The inverse to this also applies, and records of the intentional removal of limbs exist, both as punishment, and for pleasure (see Berger et al. 2005, First 2005 and Ryan 2008 for a fuller description).

[13] For example Greek, Peruvian, Aztec, and Celtic mythologies all make mention of prosthetic deities (Pelops, Aia Paec, Tezcatlitoca, and New Hah respectively).

military research and large scale prosthetics development in Europe and the United States. There is a certain macabre irony that the military hospitals and rehabilitation laboratories that engineer ever more advanced prostheses belong to that same great machine of destruction that finds ever more innovative ways to injure the same soldiers it goes on to patch up.

Fig 1: German rehabilitation centre - 1942 Hugo Jaeger/ Time Inc

The history of the prosthetics industry is infused with the history of surgery and rehabilitation, the history of warfare and conflict, of war veterans' movements, of the rise of capitalist economics at the expense of apprenticed trades and home industries, the marrying together of such disparate technologies as wood lathing, myo-electric[14] controls, hydraulics, vacuum attachments, neoprene tensile strength, and computer engineering. As the work of a number of historical researchers, on the development of prostheses shows (for example the work of Gutfleisch 2003, Gallagher and MacLachlan 1999, Reznick 2008), throughout this prosthetic history (a useful pun, if one considers the prosthetics industry as an inevitable add on to the greater forces of military history) the twin desires for rehabilitation both of form and of function have not always been mutually attainable. Most often the quest for one category comes at the sacrifice of the other. Aesthetically pleasing, lifelike, organic kinetics and cosmetic values have traditionally been pitted against mechanical, functional, robust and practical qualities, and have traditionally played second fiddle to them (Serlin 2002, Reznick 2008).

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[14] Myo-electric prostheses have an external power source and are not reliant on physical muscle strength to mechanically control movements. They utilize the residual neuromuscular network through the use of sensors so that patients can control various hand and wrist movements by voluntarily contracting the muscles on their amputated limb.

The field of medical prosthetics began and remains strongly connected to the military, documented from the time of the French field surgeon Ambroise Pare in 1529 (Reznick 2008). Often considered the father of modern prostheses (Ott, Serlin and Mihm 2002) Pare created his first functional upper extremity prosthesis in 1536, and is also credited with some of the first ocular prostheses. This should perhaps come as no surprise when one considers that the violent injury sustained in warfare by both military personal (both formal and informal) and by civilians is still one of the highest causes of amputation. In the public eye, amputation has traditionally been more visible amongst war veterans and traumatic injury survivors who have lost limbs by way of agonising injuries: often in situations where surgery conditions were not ideal and their residual limb could not be sculpted into an appropriate form to which a prosthesis could be applied. These amputees, and those who chose not to (or for various reasons are unable to) wear prostheses have *visibly* different anatomies which, when on display within the public domain, are then read as having signified something important about the character of the individual on display. Short of wearing a sign around their necks however, the many reasons why an amputee might choose not to wear a limb are reduced to social norms for dealing with abnormal anatomies. So the relationship of person and prosthesis, whether we are considering prostheses to be only physical medical prosthetic limbs, or including all manner of medical structures such as wheelchairs, crutches, or exoskeletal brackets, mean that body will be read differently in any given social situation.

Currently, leg amputations still outnumber upper body amputations four to one (Ott 2002), men are still more likely to be amputees than women, through the gendering of amputation with traditional male roles such as physical labouring, high risk sports activities, and armed services. That being said, one of the fastest growing causes of amputation is amongst the elderly, through late onset diabetes and vascular failure, and as women tend to live longer than men, this is changing the demographics of rehabilitation centres such as the one that I studied in Belgrade.

I wish to explore this concept even further, suggesting that the practices of rehabilitation - in this instance of amputee patients in Serbia - are complicated by the nature of transition of the nation-state in the past decade. While this might seem like stating the obvious, the question of restoration of mobility through the physical prosthetising of the body is in many ways replicated in the rehabilitation of the state. Both processes are ultimately concerned with the possibility for generating moral action. This capability for moral action is in many ways what defined a feeling of normalcy for my Serbian friends and informants. In this regard prosthetic citizenship is the rule rather than the exception. Our lives may be ever more technological, and we use these emerging technologies to imagine ourselves in increasingly abstract ways, pondering anti-embodiment, the end of the body, the creation of virtual lives. We seem to have taken for granted the 'really real' physical, bureaucratic, statistical, cultural and national and regional ways in which we are all prosthetic citizens.

As Jain (1999) argued, we are often preoccupied with our imaginings of the future and how we will eventually experience it. In wishing to stay ahead of the field where it comes to a medical ethics, we sometimes get caught up in the whirlwind of the latest and the greatest technologies, pondering what life will be like if they spread, becoming commonplace in society. I sometimes feel however these imaginings have become totally divorced from the way that humans actually go about shaping the daily practices that make up the bulk of our lives, and so by placing '*moramo da živimo*' in the central space of this dissertation, I am constantly reminded that we still have to live, despite constantly mutating technological landscapes, the creation of social media, advances in telecommunications, increasingly digital representations of ourselves, artificial procreation we are at our core social creatures, we have to eat and drink, we need shelter and sleep. Fate can deal us terrible blows, horrible things can happen that we have no control over. Accepting that we have to live means that constantly forging connections with each other and with technology, in ways that are nothing if not pragmatic, bound up in our negotiations of the everyday.

I

To prosthetize...is to institute a notion of the body within a regime of tolerable deviance (Mitchell and Snyder 2000: 7)

How to Look at a Prosthesis

When we imagine prostheses, what do we see?

It is the linguistic origins of the term that allows us to differentiate between prosthetic, and prosthesis. In its more recent usage, ‘prosthesis’, and its plural ‘prostheses’, refer to a finished structure, to what Wigley (1991) calls the ‘foreign elements’ that prop up the body (or a word, for that matter). As such, prosthesis has the heady whiff of materiality about it, and descriptively, becomes ó that which has been added to an already existing structure. ‘Prosthetic’ however, is an adjective, and taken in this capacity lends itself to more complex analysis. A prosthesis is for example, composed of prosthetic components. Let us look again at the origins of the word: If prosthesis is an ‘addition’, then surely the term prosthetic denotes the orientation of this relationship towards an already existing phenomenon. Further, it not only provides an orientation, it also implies a power differential, because an addition must after all exist in relation to something other than itself. It is always ‘added’ onto something (Wigley 1991). I would argue that a prosthesis supplements that which it is added on to (be it linguistic, corporeal or metaphoric) in a peculiarly paradoxical way. This paradox is possibly caused by the appropriation of a linguistic term into a social and anatomical model. If we again look to its linguistic origins, its purpose is to provide ease of pronunciation without altering meaning, a quality difficult to achieve when the text in question is the physical schema of the human body.

Jain (1999) is one of a very small number of academics to have attempted a critical unpacking of the meanings of the term prosthetic, in order to examine a number of the assumptions that scholars working with the term prosthesis have made. In a singular concise article, she pulls together a broad cross section of the literature on prosthesis and prosthetics available in the humanities, attempting an answer to the question of how the term prosthesis has come to assume a body deemed deficient and in need of supplementation. Her investigation into how the normative is configured, as well as in what capacity and in whose interests prostheses are adopted is illuminating.

Jain shows that the term prosthetic ‘presumes an enhancement to the ‘natural’ body... [where] bodies and prostheses are already naturalised rather than being understood as socially constructed’ (ibid: 39). All too often the use of the trope of prosthesis even as a metaphor prioritises the disabled body, resulting in the glazing over of the ironies inherent in prosthetising through the consumption of technologies by other types of imperfect bodies; be they gendered, raced, ageing, or colonial. In fact her description bears an uncanny resemblance to Metzl’s (2010) description of how the language of ‘health’ allows for a glazing over of what might otherwise be considered uncomfortable positions on issues such as gender, sexuality, racial and economic stereotyping. The language of health, Metzl states, enables ‘troubling slippages between the health of individual bodies and economic ones...’ (ibid: 4). Within the following chapters I aim to expand this point even further, since undertaking research in Serbia has shown me that recent liberal-democratic healthcare transitioning (under the conditions of Serbia’s much stagnated application to join the EU) also creates such slippage between individual and national bodies, creating a geopolitical hierarchy of health and risk discourse that, without the normalising rhetoric (Metzl 2010) of health as an apolitical catchall term, would likely be challenged more directly from both the internal state healthcare sectors of postcolonial states, as well as from academic and political entities.

The Bela Clinic

The militarisation of states and health systems is deserving of a vastly more robust investigation than is ventured within these pages. However, regarding the Serbian prosthetics industry, let it suffice to say for now, that I hope to show how the increasing militarism of the United States during the mid nineteenth century has had a direct impact on the rehabilitative trajectories of multiple generations of Serbian amputees, and is in many ways cemented in the very foundations of the Bela Clinic, and of Rudo. Like many countries, Yugoslavia suffered a massive loss of human life during the First World War (53% of the male population was a number often quoted to me by friends and acquaintances, though never a number that I could track down with any certainty) and

enormous numbers of injured servicemen (re)entered the work force in the post war period. At their inception Rudo and the Bela Clinic were joined together, formally founded in 1919 as The Prosthetic Company of the Kingdom of Serbia, paid for with the help of the organisation of Saint George (a French foundation) who wished to ‘help the invalids of Serbia’. The first six workers in the factory were themselves a mixture of

Fig 2: Prosthetists at work in their workshop in 1919. Source: Rudo archives.

French and Serbian amputees. They had learned the art of prosthetics manufacturing in Tunisia after years of conflict there. This workshop was first temporarily located in a southern Serbian town, but was quickly moved to its current location in 1918, an estate bought specifically for them from the previously owners, the Austro-Hungarian army, by the same French organisation. In the period between the two World Wars, the company continued to grow, building inpatient facilities and developing better working conditions for its (previously temporary) manufacturing workshops, as well as increasing its production of medical aids, orthoses, prostheses, orthotic shoes, wheelchairs and crutches. Then, as Tito’s communist party came into power, in 1954 the company was re-founded as a state enterprise. The rehabilitation hospital was expanded, and whole institution renamed Rudo, after its town of origin.

The manufacturing branch of Rudo was sold off and privatised in 1995 when the Serbian Government urgently needed to generate revenue[15], taking with it the (by now, well known) brand name. Until this point the company had had a monopoly over the industry, but it was run badly during this period, and Bojana, the librarian and translator (and my occasional research assistant) of the Bela Clinic, told me that she thought it was likely that it had been run down in order to be sold again cheaply to a foreign conglomerate in 2007. In any case, Rudo now had a small but strong customer base, and had expanded into production of mainstream ergonomic children's shoes as well as the manufacturing of customised prostheses orthotic aids. The company now employed 106 workers. Due to their shared premises, they also maintained a deal with the Bela Clinic to manufacture prostheses and orthoses in accordance with the government beneficiary regulations so that patients who wished to, could have their limbs subsidised semi-privately, while still going through the state funded inpatient gait clinic at the Bela clinic, if they so desired.

Fig 3: the original premises of the prosthetic company of the Kingdom of Serbia. Source: Rudo archives.

Both the Bela clinic and Rudo still exist on these grounds, though a large flyover motorway now separates them from the serenely flowing Sava River, the so called 'aorta' of Serbia, which was one of the original aesthetic reasons for the choice of site. Here they form a series of sprawling mismatched buildings, hunched between the city and the river, sometimes acting in competition, and other times in co-operation. The two institutions maintain separate fitting rooms, prosthetics workshops, and prosthetists, but share the park and an onsite

[15] between 1989 and 1995 approximated 60% of Serbian state and worker owned companies were privatized, through insider trading

bakery with an outside seating area, where in the summer months, patients spent a great deal of their time; occasionally practicing walking, but more often sitting in groups playing chess and smoking. Despite official administrative differences, the daily reality was that the prosthetist staff pool were well integrated, and most patients in the prosthetics department used the gait clinic in the Bela clinic. It wasn't uncommon to see the prosthetists from Rudo in the gait clinic as they no longer used their own, although they still had one on site, complete with plastic pot-plants, parallel bars, and changing booths, all blanketed in a thick layer of dust, in which I spent a couple of very wheezy hours one afternoon watching a patient have her socket recast.

Much more recently, as a result of international standardised practice procedures (so called ISOs), the centre had been gradually shoehorned into European/American models of practice, which, for example, required a physician to be employed within the prosthetics department, decree that the hospital should be a non-smoking area, and lay down health and safety guidelines for working with potentially hazardous materials (such as the epoxy plastic commonly used in socket manufacture). All well-intentioned initiatives, though as I hope to show, in many instances they increased the workload of staff, or were impossible to enforce to such a degree that they were only ever half heartedly taken up.

Despite these new changes, the Bela clinic for the most part remains resolutely the hulking relic of a bygone era. It is a disproportionately large clinic for the size of the population, having at one stage served (together with two smaller sister hospitals in Zagreb and Ljubljana) the entire Federal Republic of Yugoslavia (Burger et al., 2004). It used to boast 200 beds, but now, as a result of the increasing number of private clinics, it was in danger of being scaled down. There are approximately 200 employees, divided into medical staff (who comprised just over half), administration, and housekeeping. 16 doctors, who each have approximately 11 patients in their care, 38 nurses[16] (11 during

[16] During an interview with one of the nurses, she informed me that as 63 of the current patients had no family that could, or would, come to visit, one of their primary roles was to give moral and emotional support to these patients in particular.

any given shift), 14 prosthetists, and 35 therapists for the now 180 beds[17], an impressive ratio of approximately 1:5. Most of the therapists worked in the gait clinic and the pre-prosthetic therapy room. There are however others who I occasionally ran into; occupational therapists, staff who work with electrical therapies, and with massage, with light and radiation therapies.

At the time that I researched at Bela, there was a vague and yet constant rumour floating about the staff that the clinic was in danger of being closed down and moved to a smaller premises. There was therefore a perception among the staff, that it was their best interests to keep the beds full, and as such, a high turnover rate of patients was not really encouraged. In contrast to the outside world, where Serbia shoved and jostled its way through 'transition', life seemed to meander at a leisurely pace within the Clinic walls. And leisurely, through the streets of Belgrade, were *my* morning walks, arriving as I did, three times weekly from the central train station on the banks of the Sava, to interview and to observe, for nine months of the sixteen that I spent[18] in the country. Under the distant, but watchful gaze of the clinic director (who had, at my first meeting with her, taken a cursory glance at my carefully formatted and worded information sheet and consent form, dismissed them as trivial, and had signed them on behalf of the entire clinic, telling me that I could interview whomever I wished as long as they weren't busy), I got to know a core number of the staff, initially interviewing 3 Doctors, 3 Nurses, 2 Social Workers, the head Prosthetist, the computer technician, and one of the accounting bookkeepers, along with 15 patients over the course of just two months. I was interested in quickly establishing a group of people within the clinic who would know who I was. During most of this time I was accompanied by Bojana, and I also spent long periods of time discussing the clinic as she saw it. These were also some of

[17] the clinic was not often full, aside from in the middle of winter

[18] I was actually resident in Serbia for 18 months, though travelled to New Zealand to visit my family, and to India for a month each.

the longer and more structured interviews that I conducted, as I wanted to build up a picture of the clinic, from each group's perspective[19].

As the months went by gradually as I became less of a novelty, and I was left mostly to my own devices, unless I requested that Bojana join me (which I often did if I was interviewing particularly elderly patients, or those with difficult dialects), and so a pattern emerged where I spent my mornings observing for 3 hours in the gait clinic, tucked against a wall with notepad in hand and a bottomless cup of coffee. The initial patients I had met, would occasionally introduce me to their 'classmates' so that we could chat as they waited their turn, and the therapists could snatch five minute conversations in between patients. Many times in the gait clinic however, there would be a mix of patients that I knew and didn't know. None of them seemed to mind that we hadn't been formally introduced, as by this stage I had become part of the gait clinic landscape. The same with the therapists. All of these had, by this stage heard of me however, and many interviews started with a request to know how my research was going. I stopped counting these snatched 'interviews' in the gait clinic (as they merged with my field notes and observations) when they hit 60, as it seemed a little audacious to count what were essentially conversations, though the process of their collection proved to be pivotal in understanding the importance of gait clinic in social as well as physical rehabilitation. During these morning sessions, one or another of the initial doctors or therapists that I had interviewed would usually drop by, and give me the names and room numbers of patients that they thought would make 'interesting cases' for me to interview. I was initially very thankful for these suggestions, although after some time I realised that they had been selecting out patients with various psychological traumas, that distinguished them from the other patients. Eventually I began to suggest patients

[19] Part of the reason that I only interviewed on Monday, Wednesday and Friday, was to give myself a breathing space between what what were often quite emotionally draining interviews, I could spend the morning writing up my notes, and updating my field diary, although eventually I was also offered a teaching position at the University of Southeastern Europe, on their Novi Sad campus, which comprised of two afternoons (conveniently spaced on Tuesdays and Thursdays) a week.

names to doctors myself, and to check whether they would be interested in talking with me.

In the afternoons, I would seek out patients or staff that I had spoken with in the morning for longer conversations, either in their offices, rooms, or, more often in the case of patients, in one of the quieter upstairs therapy rooms. During these interviews I was careful to have another member of staff with me. This wasn't a particularly difficult undertaking, given that, in the spirit of multi-tasking, the doctor in charge of the patient would often come and do their daily check up on their patient at the same time. When this wasn't the case, most of the time, I could draw on the help of Bojana, though on the (very seldom) chance that she was busy, a therapist with whom I had established a rapport, named Miljan stepped in. As the director had made clear that she had consented on behalf of the clinic and I didn't wish to antagonise her[20], I also reiterated to the patients that while talking to me that they could stop the interviews whenever they wished, and that they would be not be identified in my research. In addition to the initial 15, I conducted interviews with 20 more patients, either preceded or followed (or both) by talks in the gait lab, and I have also used materials from interviews from more staff members, 3 more of the doctors, 2 of the prosthetists and 4 of the therapists, Bojana, Nikolina and Gordana I met with often, sometimes twice weekly, either to interview, or in the course of interviewing patients. Additionally, from Rudo, I interviewed 3 patients, 2 prosthetists and the marketing manager, and physician in charge of prosthetics marketing (whom I interviewed repeatedly). From Ottobock, I talked with the then director, his secretary and the company's business lawyer (at a Serbian 'business' lunch[21]). Janko conducted surveys with the 4 private prosthetists operating in Novi Sad on my behalf. However, it is the Bela clinic, that occupied the bulk of my time, simply because of its proximity and the welcome I received. I believe that my presence in the

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[20] The Bela clinic was in many ways an anomaly. It was run primarily by women of 'strong' opinion and character: the director, the head prosthetist, the majority of the doctors, and therapists. Only in the prosthetics manufacturing department were the staff mostly men.

[21] See Momo Kapor's book 'a guide to the Serbian mentality' for a tongue in cheek description of this unique cultural phenomenon.

clinic was accepted so easily, and with such little resistance, because a previous member of staff, who had recently retired, had also been a social anthropologist[22]. He had been a popular staff member, and his anecdotes and observations of the patients were missed in the staffroom[23].

Putting History into Context

I have mentioned already that the field of prosthetics and of prostheses led rehabilitation is conceptually, as well as physically located within a wider industry of military rehabilitation (Reznick 2008). After all, as Scarry notes (1985), the 'real' purpose of territorial war might be considered as one of injuring (as opposed to killing) as many of the enemy as possible. It takes no large measure of cynicism to consider prosthetics the ultimate self driving industry. Just as military powers create ever more diverse methods to out-injure each other, so they also create increasingly advanced tool kits for piecing back together soldiers. There will always be newly injured bodies, who, apart from their missing limbs, are (or at least were) healthy, active citizens.

During conflict, whilst in active service, military servicemen and women literally become the nation made corporeal, acting both for and as the state, whether defending state integrity or extending the reach of their patrons, their actions are the desires of the state made manifest. Perhaps this is best explained by a visual aid. In figure 4 (overleaf) the arrows represent the advancement of Soviet controlled territories west toward Berlin in 1945, but what is really being shown? In very real terms these red and blue arrows are the movements and journeys taken and the dispersal of people; troops, battalions; individual bodies. As citizens who have physically defended the boundaries and agendas of the state, who have become the nation manifest, these returned service people become

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[22] though not employed as such.

[23] Outside of the clinic, I have referred to informal conversations that I had with my students, all ranging in age from 18 to 25, and to my six Serbian (and one Canadian) colleagues at the Novi Sad campus of the University of Southeastern Europe. My own friends, Serbian teachers, family connections, Janko and his family and friends, who range from academic staff to subsistence farmers, make up the rest of my peripheral research subjects.

the ultimate subjects for rehabilitation, as governments show that they are willing to guarantee the sovereignty of these bodies, these fleshy territories of the state.

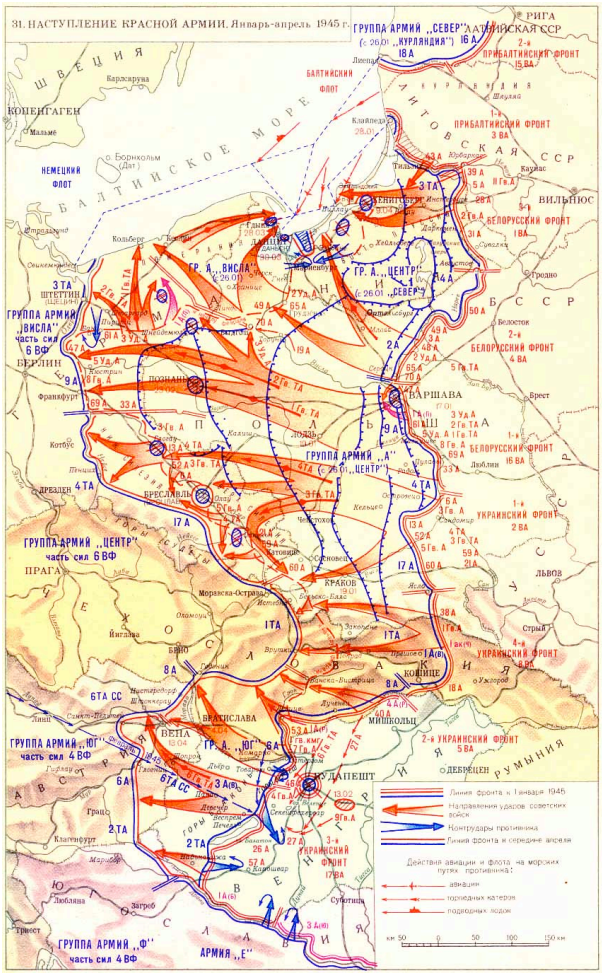

Fig 4: Attack of the red army - Source: ministry of defense of USSR

At least they are guaranteed to a certain degree, for returning soldiers often have trouble returning to, and fitting into 'civilian life. Serlin (2002) shows however, that rehabilitation of the body is seen as a precursor to rehabilitation of the mind. In any case, rehabilitating bodies, while perhaps less controversial than rehabilitating minds, is nonetheless a costly undertaking. They are expensive, the newly developed military prostheses currently available on the market. $60 000 US for an Ottobock[24] C (computerised)-leg; as much as $100 000 for a myo-electric arm. For military veterans, these costs are borne for the most part by the state. Sadly, though not entirely unexpectedly, while I was in Serbia I never had the opportunity to deal with the military rehabilitation teams and their patients, who were treated differently to civilian cases. I was however, repeated told by the staff at both the Bela Clinic, Rudo and Ottobock that the military amputees could get whichever limbs they wanted, excluding the prestigious 'c-leg' prosthetic components. Rehabilitation of military amputees, it seems, is guaranteed, as is compensation.

[24] Ottobock healthcare is a global brand in medical aids, orthoses, and prostheses. They are based originally in Germany, and the dominate the Serbian prosthetics market. They are introduced at length on page 66.

So how does the militarisation of rehabilitation fit in to my Serbian clinic? After the Second World War under the guidance of Josip Tito, the newly amalgamated Yugoslavia underwent a period of economic revival, and breaking with communist tradition, Tito often looked to the United States for inspiration. In the case of the Bela Clinic, a team of doctors and prosthetists were sent to the United States to research new rehabilitation practices. They returned, full of enthusiasm for something that they termed 'the American Model'. I have yet to pin down exactly what this meant, as each time I interviewed staff in the various departments, I was told that the entire centre was based on 'the American model', as though this was an answer in itself. The model, as much as I could ascertain, consisted primarily of treatment managed through a set of psychosocial 'teams', the two most common being a prosthetics team and a patient care team. This teamwork was ostensibly to create a unified approach to the management of patients, but was used just as often to sort the truth from fiction regarding what patients said and did. It was widely accepted among the staff that the patients would lie about what they had eaten and how much exercise they had undertaken. In a surprising turn of events however, I discovered that nurses were not considered to be a part of these 'teams' and were not invited to the weekly meetings that the staff attended. Those that I talked with felt that this was a slight on their profession and informed me that, as the nurses had the most contact hours with the patients, they were in fact better informed about patients' health practices and behaviours. One of the head nurses cited two incidents where nurses had picked up underlying health conditions long before the physicians and therapists had noticed.

The technologies developed in military labs trickle down into the mainstream prosthetics industries however, as technological advances in components or materials, and as accumulated knowledge in practitioners who are invariably involved in both military and civilian clinics. The history of the Bela clinic, and the overflow of military cases into public domains during the recent past also meant that it was possible to see a militarisation of what Mol (2008) calls the logic of care, where philosophies of triaging were woven into daily practice. Young patients, active patients, children, geriatric

patients, patients who smoked, those who had cancer, diabetes, vascular heart disease, obesity problems...all were evaluated, and everything from their prosthesis type, the allocation of their bed, to the staff members assigned, was a judgment call on creating a network that would be in the best interests of both staff and patients. Young patients with active lifestyles were assigned young enthusiastic prosthetists, and equally keen therapists.

The clinic had its own ebb and flow throughout the year. The autumn harvesting months would bring in unskilled labourers, most often very young, poor and from the south, all 'agricultural injuries' I learned. Now 'agriculture injury' is an umbrella term that doesn't quite do justice to the raw horror of having one's limb mangled by a hay thresher, or a baling machine. Later in the year, heading into winter, large numbers of geriatric patients would enter the clinic, either for socket replacements or repairs. Many of these amputees lived alone or in households where they felt that they were a financial burden on their children. A stay in the Bela Clinic was at least a month, most often longer, a warm, coal fired respite from the icy *Korševa* wind (said to blow down from Russia), and included three meals a day. The clinic was consequently often full over the winter and almost empty over summer, when everyone escaped back home to tend vegetable gardens, go fishing and/or meet friends, and toward the end of my research in June I wandered my way through almost empty corridors pleasantly cool in the 35 degree temperature. Patients were having 'a holiday' from their rehabilitation 'work', though the more cynical among us might reasonably ask how exactly one has a holiday from an amputation. In any case, only those who had absolutely nowhere else to go remained.

On a chilly autumn morning I met with Gordana, the physician I had initially called about my research. She had invited me to the clinic. She was on admissions duty when I arrived, and asked if I could accompany her as she saw new patients. We discussed my research and my hopes for observing and interviewing in the clinic. It would not, she was sure, be a problem. In between evaluating new and returning patients, we talked. I learned that most of the patients were geriatric men (unilateral above knee vascular

amputees), and most had some form of clinical depression. Some had had their prostheses since the Second World War, coming in occasionally for repairs and new sockets. Gordana informed me that while the Bela Clinic used to manufacture their own components when they were connected to Rudo, this was no longer financially viable due to an influx of cheaper, good quality mass produced German parts. She was aware of some international organisations for amputees, but told me that as far as she knew, no national level amputees association existed in Serbia. She also mentioned that as a centre they are unable to do much for patient advocacy due to the tiny amount of financial support that they receive from the government. She told me that some of the (younger) patients receive a small amount of vocational training and have a computer room available to them. Although, as I found out a couple of months later, this computer room had been out of action for at least three months predating the interview.

Gordana continued, telling me that during the 1990s there were many land mine victims who came as refugees but who have since returned to their communities. Before this conflict people used to travel from throughout Yugoslavia. Now it is only the poor and the sick who come. She laughed when I asked about the previous 'permanent' inhabitants who I had heard about ó groups of 'internally[25]' displaced refugees who had remained at the Bela Clinic for almost a decade during the 1990s, marooned in Belgrade because of bureaucratic loopholes in citizenship law. They were 'long gone' though she didn't know where. 'Although', she asked, 'did I know that when they were here, they even had their *lična*[26] cards written up with the hospital as their permanent address?' I said that I was surprised they were allowed to stay so long. 'It was a crazy time' she continued, adding that 'the demographics of the centre were very different.' At that time there were long queues for the elderly patients as the beds were all filled with soldiers. Now they normally have about 150 patients a year, but back then it was maybe 700 or

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[25] it is difficult to classify the refugees as internal or external, because, depending on one's political orientation, the territories that they were leaving were either still part of the Federal Republic of Yugoslavia or already independent.

[26] state identity card

800. ‘It was crazy’ she said, as she shook her head. I’m not sure if the craziness was surviving the whole thing, or that it happened at all. Both, I imagine.

At the same time that the Kingdom of Yugoslavia’s national-scale manufacturing facilities of the Bela Clinic were being developed, the whole face of the prosthetics industry was changing in the aftermath of the first and second Balkan wars, and of the first World War in the early twentieth century. Perry (2002) writes of the birth of a large-scale prosthetics industry in Germany after the First World War, and the mapping of class hierarchies onto prostheses to be distributed to veterans that occurred as the growing field of orthotics sought to reproduce the stability of pre-war German society. By shifting responsibility onto veterans to re-enter the workforce as quickly as possibly, these pioneering prosthetists recast the ubiquitous broken war hero into a potential stubborn state slacker, out to exploit the welfare system, were he not to receive a robust and job-ready limb. Prior to this era, the focus of the field of prosthetics had been primarily aesthetic, or as Mihm (2002) puts it, limbs that could be ‘presentable in society.’ Cosmetic limbs, which at the time were made of lightweight timber and without moving parts, are, as the name suggests, aesthetic. As one of the young patients I interviewed at the clinic said, they were ‘something to fill the empty space’.

In the early 1910s however, in the face of enormous numbers of injured soldiers and in light of the failure to marry cosmetic and practical functions, German orthopedists simply gave up the idea of concealing injury. By employing Fordist production models, and by conceptualising the body as a machine, complete with the possibility of interchangeable parts to be used by the labouring classes, who were in turn imagined as interchangeable parts to the larger societal economic reserve, they tailored ‘work claw’ limbs to specific manual labouring professions, sometimes incorporating the limb fixture right into machinery so that amputees literally became part of the machines. Veterans were offered ‘job counselling’ and attended working classes to retrain, so that they could be slotted back into manual jobs. They were expected and often economically pressured to return into the manual work force as quickly as physically possible. In contrast, the

middle classes of officers were offered entry into intellectual professions such as clerking or teaching, a distinction also shown through the retention of the more aesthetically pleasing but mechanically nonfunctional, cosmetic 'sontags[27]' arm for them.

Eventually Germany turned more fully toward functionalist design and was at the same time plunged into a financial depression. The manufacture of these cosmetic arms was largely rendered obsolete in the following decades through an early manifestation of the rubric 'form follows function' because the *sontags* arm was eventually deemed to be 'devoid of any type of important function' (this being any function that would allow for manual labour). Despite this, during the initial period of prosthetics invention it is possible to see the class structure of German society reworked through the military and then channelled through the very bodies of amputees, where in the lower classes, in the name of efficiency, manual workers literally became human prostheses to the machines they were often physically attached to (Perry 2002). Davis McDaid (2002) notes a similar discrepancy between the lower and middle classes in the US post civil war. She writes that while in the northern states, many war veterans hoped to hide their injury with a lifelike approximation,

> most Virginia veterans, however, were more interested in substance than style, looking to artificial limbs as a practical means to regain mobility and return to work (ibid: 131).

Davis McDaid suggests that for many of these veterans, the 'post-war battle for economic survival and physical mobility [was] nearly as difficult as the war itself' (ibid: 136). The binding together of mobility, labouring, and citizenship therefore has had many precedents. These findings are mirrored in those of Burger et al. (2004) who notes that during a 4 year study[28] of 671 amputees from the three primary ethnic groups in Bosnia, the Serbs had higher levels of employment and mobility, due in good part to

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[27] a 'Sunday' arm, for occasions where one needed to be smartly dressed, such as church.

[28] from 1998 until 2002

their being fitted with more basic limbs that were less likely to break. Technology, far from racing ahead with our cybernetic dreams, remains resolutely appropriate and culturally delineated.

Another of the many staff who I spent time with in the Bela clinic was Nikolina, head of the department of prosthetics. She had studied originally at a specialised college for prosthetists 30 years ago, and after this went on to study something that Bojana translated as ‘defectology’, which she described as the study of how children with physical disabilities learn and experience the world. However both these schools had been under the old socialist system and institutions such as those where she had studied no longer existed. Now prospective new prosthetists interned at the centre for a couple of years after completing medical high school, and were occasionally sent off to commercial healthcare training seminars run by the German healthcare company Ottobock. This further reinforced the monopoly that Ottobock had over the Serbian prosthetics industry, as the courses offered to these fledgling prosthetics dealt solely with components that they produced.

During one of our first conversations, I asked Nikolina how the department had changed over the 30 years that she had been working at the clinic. After pausing for thought, she told me that things had become much more technologically advanced, but that this was not necessarily a good turn of events. She felt that, in many ways, technology hindered patients from accepting ‘the situation’ and thus their amputation. To illustrate this point, Nikolina used the example of a woman who could knit herself her own stump sock. This hypothetical woman, she posited, whether or not she came to be able to don and doff her new prosthesis, would retain a feeling of accomplishment and perhaps a measure of ownership over her condition, as constant interaction with her stump, both measuring and handling it, might mean that she could come to terms with her altered body image faster. ‘People these days think of prostheses like shoes’, said Nikolina, ‘It’s not a good thing, like they are disposable, you just assemble all the parts and away you go’. The smooth shelled prostheses appear simpler and disguise both the complex workings of the

prosthesis and the hard work of the prosthetist. But, Nikolina reminded me, waggling her finger, ‘no matter how complex the prosthetic leg becomes, it still won’t walk on its own!’ Without training, it will remain a useless object.

Nikolina was an excellent artist. Her own paintings adorned the walls of her office. She described how difficult and important it was to get the prosthesis to match the remaining leg or arm, and later showed me a brochure for cosmetic silicon glove prostheses. ‘Look at the skin’ she marvelled, telling me a story from when a previous head of prosthetics had looked at her art works. ‘He came and asked me if I could paint on the skin [of an arm prosthesis], all the veins and details, can you imagine that? ‘what an artwork it would be’. Unfortunately the head had retired before this project had been realised, but Nikolina held the memory tight, fingering the skin of her wrist, ‘can you imagine - all those veins?’ I didn’t really have to imagine hard. A sales brochure of cosmetic hands was open on the table in front of me. Dozens of disembodied hands waved at me from the pages of the promotional booklet, and I compared it in my head to a latex glove prosthesis that I’d seen on a patient’s hand a couple of days previously, which had been shiny and pink like new skin under a burn.

Nikolina told me that, in her opinion, the most important skill a prosthetist must have is creativity. She views each finished limb as a piece of art and is emotionally attached to each prosthesis, especially those for children. She remembered a one-year-old boy born without a leg who came to the centre, who they helped to walk and supported as he grew up. Though now in his 30s and married, he and his family still send birthday and Christmas cards to the prosthetists. Nikolina has seen how they can make an enormous difference in the lives of patients. They strive constantly for the best solution, even in difficult times. Nikolina told me that during the 1990s many of the prosthetists were making more than 50 limbs a year, with scarce resources, and overflowing wards. Now that things have quieted down, she has time ‘to think’ again, and now she thinks a lot.

Nikolina was very supportive of my fieldwork, and was very interested in the lives of the patients. She often wondered about how they survived and adjusted, especially the younger ones. She too told me the story of the marooned refugees during the 1990s with the Bela Clinic listed as their address on their government issued identity cards. It appeared that she followed up closely on her patients, so I ask her what became of the refugees, but like everyone else, she didn't know. They have simply gone, like characters in a story. She does tell me however that these days military amputees have access to the latest technology and prostheses, and that it is very seldom that they turn up in the Bela Clinic. 'One has a leg that cost €2000!' she exclaimed, as though such a thing was inconceivable (which, in light of the type of patients that the clinic received, probably was). When I asked her if the soldiers were only covered for injuries acquired 'legitimately' during the war, (i.e. in combat, or on active duty) I received instead a story of unfortunate Serb soldiers in Bosnia who lost arms whilst looting village houses that had been booby-trapped with mines in closets by the retreating enemy forces...The answer obliquely being 'no'.

Manufacturing Meaning: prostheses and technological innovation

The increasing mass production of limbs and limb components shows how closely the prosthetics industry is tied to the advancement of capitalist economics. The marketing of these prostheses is interesting for many reasons. Standardised mass-produced limb components are implicated in networks of technologies and materials, which are always in a precarious state of possible collapse and renewal as exhibited by the years of sanctioning in Serbia. These collapses may fuel new technologies - Ott (2002) for example notes how the development of the acrylic prosthetic eye in America was bought about through the disintegration of the trade of soda glass from the Black Forest region of Germany during the Second World War - or they may expose flaws in the logic of technological advancement for its own sake, as in the following. The Bela Clinic was actually mentioned specifically in a Burger et al.'s (2004) recent report on the provision of prosthetics to land-mine victims in Bosnia and Herzegovina, where it was

Fig 5: Wooden exoskeletal prosthesis with SACH foot and shoulder harness, made by Milos

hypothesised that the better conditions of the Serb amputees was partly attributable to the more simple nature of the prostheses (a much higher number of wooden or simple exoskeletal limbs) and the existence of the inpatient rehabilitation centre which was easily accessible to the Serb refugee population. Croatian and Bosniak amputees, who received higher quality aid treatment outside of Bosnia, had access to more technologically advanced limbs, but lacked the follow through treatment and access to replacement parts (ibid) which resulted in a higher percentage of limbs that were not in working order.

Toward the end of my research, I met one of the last great timber prosthesis makers in Serbia, (possibly in the world, as searching for wooden prostheses these days turns up primarily historical articles) although rather than whole limbs, these days Milos mostly produces sockets. But, as he had heard that I was interested in the wooden limbs, he disappeared down a hallway in the labyrinthian network of Rudo workshops, and returned with a full wooden limb that he had once made. Great blocks of linden had been bored, lathed, sanded, finely adjusted with cork and polished to a high gloss. The inside gleamed with polish and the outside was painted a matt skin tone.

Despite the beauty and functionality of these limbs, the management of Rudo seemed almost embarrassed that he was still producing these sockets, and told me that these sockets were only produced occasionally, primarily for veteran customers who had been

using timber all their lives, and refused to make the change to epoxy, or for those allergic to it. Milos told me proudly however that he had even had a New Zealander come to him for a socket refit and that the natural feel of the wood was good for the stump, which sweated less than in epoxy (I remembered that I had also seen for myself that there was at least one new user in the Bela Clinic using a wooden socket).

A couple of days later Milos showed me around his workrooms. It took no longer to create the socket in wood than in epoxy, he said, as I looked at the collection of huge machines that seemed as though they would not be amiss in a giant dentistry practice. Rather than epoxy fumes, broad swaths of sawdust and wood chips covered the floor, and a fine wooden powder permeated the air. The dust and the aesthetics of the place led me to assume that these contraptions must have been from after the Second World War, but Rudo had invested in these machines from Ottobock healthcare back in the 1980s, Milos informed me. Ironically enough, right across from his workshop was the thermoplastic moulding workshop, a vastly more space-age setup, where staff made orthotic back supports and chest cages. Milos currently had two interns working with him,[29] but he was concerned about the future of his craft. 'They are not so interested in all this now' he told me, gesturing to his machines, before sweeping his eyes across the hallway 'It's all much more technological these days'.

Fig 6: some of the lathes in the woodworking rooms.

[29] The interns at Rudo spent time in all the prosthetic and orthotic departments.

An incident later in the year showed me first hand some of the tensions that ran now between the high tech and low tech solutions that the Serbian prosthetists were dealing with. Bojana had been asked by the centre to make a presentation to the prosthetists about a new laser assisted alignment platform that the centre had invested in, and Dejan, the marketing officer for the company had come to Belgrade to walk her through the promotional DVD (in English) so that she would be able to assist the prosthetists with any instruction that they needed.

As professionals, prosthetists have undergone a startling transformation from turn of the century purveyors of carpentry and leather working. Ones such as Milos and Nikolina, who had been in the Serbian industry for three decades, had experienced first hand the exponential superseding of materials and technologies, just as they had the disintegration of their land of birth. Far from existing solely in the high tech future, they were located within historical and cultural networks, and were very aware of the ambiguities of craftsmanship and technological precision. Both communicated to me that the work of being a prosthetist is fundamentally a negotiation between what is possible, and what is viable financially, aesthetically, physically and economically.

The promotional DVD Bojana and I watched was a sleek, well-designed affair for a product from Ottobock called 'L.A.S.A.R[30] Posture'. Right from the beginning titles, the contrast with the Bela clinic was extraordinary. According to the DVD the future of prosthetic design had already arrived. In this future / present, the small L.A.S.A.R. platform itself guided the prosthetist to fine tune the limb of the patient by way of blinking lights and Laser lodes. On the DVD, prosthetist, laser platform and patient all worked quietly together, fully invested in the process of alignment. The room they were in was quiet, except from the quiet hum of machines. The floor was clean, the prosthetist's lab coat spotless. It made the gait clinic on the floor below us seem positively carnivalesque. The prosthesis being aligned was cutting-edge. Both prosthetist and amputee smiled out of the monitor at us. The narrator, English speaking, with a soft

[30] Laser Assisted Static Alignment Reference

and authoritative underlying German accent informed us in a friendly yet scientific tone that ‘the platform takes much of the guesswork out of static alignment’. This in turn allowed for ‘faster, more precise integration, less pain, and quicker rehabilitation and recovery’. The video went on to show a motion sensor lab and pressure pad software, though I confess that I had lost interest by then, though not due to boredom!

My mind was spinning after seeing a particularly striking image on the screen. At one point the amputee had taken off his limb and the prosthetist placed it into a machine where a laser matrix had highlighted all the areas to be fine tuned. Together with the narration about removing the guesswork from prosthetics manufacture, I felt that this seemed to represent a new shift in the ever more technological work of prosthetics manufacture. It seemed to me that in this process both the prosthetist and the patient had been rendered somehow passive, that they were now prosthetic to a self-perpetuating technology which not only held the solution to the fallibility of the biological body, but also showed the shortcomings of the human mind, in that the messy ‘guesswork’ of the prosthetists could now be eliminated by clean science. I found it strangely distressing to watch. After the video ended, in a predictable series of before and after clips, I made my goodbyes, asking Dejan to pass my regards on to his company director, who I had met just months previously. ‘Oh! He’s no longer the director!’ laughed Dejan, ‘you know how these things go[31]’.

The increasing mass production of limbs and limb components show how closely the prosthetics industry is tied to the advancement of capitalist economics. The market of limb parts is interesting for many reasons. Standardised mass-produced limb components implicate networks of technologies and materials, and the globalisation of export and import. In Serbia, new and very European dichotomies are reproduced through the juxtaposition of localised internal industry (construed as inferior, poor

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[31] I did. In the new capitalist Serbia, the motto more than ever seemed to be get rich or die trying (Colin 2004). European brand-name shops sprouted like mushrooms in central Novi Sad and Belgrade, only to disappear as quickly months later. My friends enthusiastically watched reruns of ‘Only Fools and Horses’. ‘It’s the Serbian dream!’ one informed me.

quality, cheaper, old fashioned, basic, only suitable for the old, the infirm, the poor, and refugees) and the external globalised industry as monopolised by the German super-giant Ottobock (taken to be cutting-edge, expensive, privatised, and foreign). Rudo staff who told me that they had stopped manufacturing locally because their products would never hold up to the standards demanded in a 'normal' country were playing into the construction of normal as something that exists outside of Serbia as Greenberg has suggested just recently (2011).

Early in the week after the video screening I was sitting again in Bojana's office. I asked how the prosthetists were getting on with their new laser platform. Unsurprisingly it hadn't been set up yet. 'Do you think they will use it?' I wondered aloud, 'they'll have to' said Bojana and made a face, 'the centre has invested a lot of money in it.' Later that week Miljan, a therapist with whom I also spent time suggested to me that the prosthetists might not be so happy with their new platform. It was during one of our conversations about gait and sensory labs that I learned the centre had also bought the cameras and software required for a dynamic motion capture lab some months previously, but that they'd also never been set up. I wondered aloud if it was simply bureaucratic delay, or if some staff were actively resisting this change and if so why? Miljan thought that perhaps the prosthetists were worried about becoming *less important* in the process of rehabilitation and that some off them might be may redundant. I also wondered, given my observations in the gait lab, if the staff were afraid that these new precision machines would show up their shortcomings, mistakes and general sloppy workmanship, of which there was a fair amount. Either way, I didn't really find their reticence particularly surprising; it was after all their hard work and professionalism that was at stake.

Regardless of the type of prosthetic, the body can be considered fundamentally altered in this process of being re-membered (quite literally), as in order to achieve normalcy in both aesthetics and lifestyle, people with prosthetic parts seem to acquire what appear to be 'super' human qualities, limbs that can be replaced, artificial organs - at times it

seems to be a veritable capitalist economy of body bits, subject matter than many an anthropologist has waded into (see Sharp 2000 for example). The reality for many amputees however is that daily life in much of the world however is often far removed from these unlimited possibilities, the newest research, the latest developments, and is successful only with a socio-cultural understanding of 'normalcy' not only in terms of propriocentric kinetic or biomechanic capability but also in cultural, economic and aesthetic capacities. In the field of prosthetics, these very concepts are perhaps best evidenced in the development of the 'Jaipurfoot'.

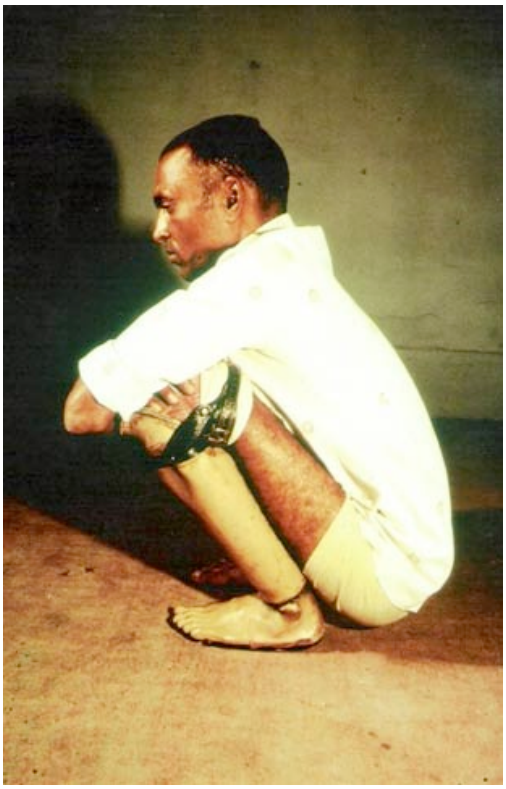

Fig 7: Man squatting while wearing a Jaipurfoot.
http://www.diabetesindia.com/diabetes/the_jaipur_foot_3.htm
accessed 12.05.09

The story of the 'Jaipurfoot' began in 1955 when a British orthopaedic surgeon living in what was then Ceylon (Sri Lanka) remarked on the need for a foot prosthesis for amputees that could be worn barefoot, was rugged and waterproof, and was most importantly, cheap (Srinivasan 2002). His observation proved to be an astute one, though it was decades before his goal was achieved. The prostheses available in Sri Lanka and India, and indeed most prostheses available at the time required the user to wear a shoe (especially older models), and at his clinic in Jaipur in the northwest of India, another physician Pramod Karan Sethi noticed his patients were not wearing the prostheses that they had acquired from the army bases supplying limbs to them.

Having read the remarks of the by now departed Brit, Sethi became convinced that 'the shoe was the villain' (Srinivasan 2002: 336) and became obsessed with creating a realistic foot prosthesis and socket that would allow the wearer to sit cross-legged, squat,

and to go either barefoot or in sandals, three important performances of social and aesthetic normalcy in India. Moreover the limb needed to be cheap to make, easy to fit, waterproof and potentially be matched to the skin colour of the wearer. He found the answer in vulcanised rubber. The final foot and limb could be fitted in less than an hour and could be made by non-professional local artisans, thereby eliminating the need for expensive prosthetists. The 'Jaipurfoot' was born, and can now be found across India. The Jaipurfoot organisation also holds international teaching 'camps', working with local technicians so that they can continue to work when the Indian technicians return to their centres. As of 2007 camps have been run in over 20 countries, providing cheap robust limbs for over 19 000 people (outside of India)[32].

Whether high or low tech, both therapists and prosthetists in Serbia were keen to remind me that in the rehabilitation centre, in order for rehabilitation to be successful, an amputee must learn how to wield their prosthesis with finesse, and that as Nikolina said, technology on its own is not enough. This learning takes place in both formal and informal settings within the Bela Clinic, where the generic, mass produced prosthesis becomes tailored to a particular body, through the moulding of the epoxy socket to the stump; and the body in question learns to accommodate the prosthesis, through static and kinetic adjustments. This is the hard work of the prosthetists, the patients, and the therapists - what the DVD I had watched with Bojana referred to as 'guesswork'.

To the therapists and prosthetists at the Bela clinic, the form that the prosthesis took was less important than the learning of how to use it to its full potential. All were adamant that training and practice was the only way this could take place. It was for this reason that the Bela clinic was an inpatient clinic. The primacy of technique over technology is reinforced by the previously mentioned quantitative research by Burger et al.2004) into prosthesis usage among refugees from the three different ethnic groups in Bosnia and Herzegovina.

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[32] http://www.jaipurfoot.org/05_fcamp.asp accessed 03.08.2012

> Serbian patients generally had the simplest prosthetic components (i.e., the highest percentage of wood sockets and exoskeletal prostheses and the lowest percentage of thermoplastic or carbon fibre sockets and hydraulic knees...) (ibid: 26).

However, all the Serb patients had access to an inpatient rehabilitation centre - either the Bela Clinic or its mirror institution in Banja Luka (the second largest city and the administrative centre of the *Republika Srpska* entity in Bosnia and Herzegovina). While refugees from other ethnic groups had traveled abroad to receive more advanced limbs, Burger et al. infer that lack of rehabilitation, language difficulties and the distances required for follow up maintenance are likely to be barriers to successful rehabilitation and social integration, and finally conclude that their

> data do not support the notion that high-technology prosthetic components are more effective than what are considered as more simple and traditional components. The group (Serbs) with the highest percentage of the simple prosthetic technology had the highest percentage of functional prostheses and the lowest unemployment rate (2004: 27).

Prostheses are culturally made material. Without consideration of the societies in which we live, they risk becoming unusable, for they are nothing if not pragmatic. They also require the acquisition of new skills, regardless of how technologically advanced they may be. The wooden limb components available at the time when the report was commissioned and occasionally still produced in Serbia might not have had the pizazz of hydraulics and computer technology, but they were robust, could be built and adjusted quickly and cheaply, and could be replaced from local materials. Their purpose was to allow people to move quickly back into their communities, and into their jobs. A prosthesis is primarily important as a tool after all, desired because of its ability to open up possibilities, which include mobility, physical jobs, normalised social interactions.

Politicising prosthetic relationships

A great number of the patients that I dealt with at the Bela Clinic however had no jobs to return to and no desire to return home, or no possibility to do so in the case of the refugees. The primary objective when dealing with these mostly geriatric patients was dealing with their co-morbidities which, more often than not, were more serious than the actual amputation. Both parties in this regard were happy to take things slowly, sometimes *very* slowly. With the staff wanting to keep beds full and many of the patients happy to stay put, it wasn't uncommon to find people who had been at the Bela clinic for 6 or 7 months, occasionally a year. The high level of rehabilitation care that the patients received over long periods of time was therefore just as politically and economically motivated as it was by professional clinical practice.

Viktor, one of the three social workers at the clinic explained; regardless of whether they were officially citizens of Serbia, the patients (many of whom had ambiguous citizenship status) could be referred to geriatric homes, or that alternatively, he could help to organise financial aid for them. Most patients want to go into homes, he told me, adding that 80% of geriatric patients never go home, instead ending up in general or more specialised care homes. As the hospital is obliged to find them a bed in one of these care homes before they are released, many geriatric patients have long stays at the clinic, waiting for a space to open up for them.

Viktor was, as one might expect from an amputee social worker, a wealth of information on the types of care and financial support that the amputees could receive. For example, the state gives a one off payment somewhere between 100 to 300 euro to those patients who do want to go home, depending on the nature of their amputation and the types of home aids that will need to be installed. Amputees are sometimes entitled to social financial aid and/or home aid along with this, which works out at approximately 100 euro a month. There is a six month control on the financial aid that they are entitled to. With a wink Viktor told me that ever since one of his patients went to the benefit office

with their prosthesis on and was deemed fully rehabilitated (with the result that the patient's benefit was cut off) he has encouraged his patients to go without their limbs, if possible, in a similar manner to how Staples (2003) describes leper communities managed the display and concealment of their sores for monetary gain. While he did not encourage them to lie outright, Viktor, in particular, had a strong sense of how the amputated body could be used for political and economic gain.

In much the same way that Staples (2003) maps the hierarchies of body parts in leper communities in India, parts of the body that are amputated are also ranked, by surgeons, amputees and prosthetists. This happens within a range of anatomical and biomechanical models. For example, the greater the expanse of limb lost, the higher the risk of elevated blood pressure. The smaller the residual stump, the more difficult it is to wield a prosthesis. Patients are much more likely to survive amputations at the extremities of the body (Ott 2002), and prostheses are often easier to wield below the knee or elbow (Kurzman 2002, Gutfleisch 2003). Additionally bodies are ranked in terms of aesthetics: amputations of the legs are less immediately visible than arm or facial prostheses. A missing finger is less likely to provoke a feeling of unease than a missing arm. From a biomechanical standpoint, prosthetic arms are more difficult to wield proficiently than legs.

This hierarchy of amputation comes not only from within the medical institution, as Kohrman (2003b) has shown, but also government statistics play a vital role in legitimising categories of disability. To this end, amputations are also ranked by governments in a categorisation of disability. Losing both legs below the knee, one leg above it, or one arm in Serbia does not qualify a citizen for a disability pension, only the loss of both legs above the knee, or of both arms can. This is despite the fact that amputees with the same injury may require vastly different levels of support given their differing physical capabilities.

Regarding governmental support, from Viktor, I learned that if the amputee was injured at work then they were entitled to compensation, and a commission was meant to undertake a work report to determine the amputee's level of physical disability. The worse the injury, the more money they should get (this bureaucratising of disability, and the ways that many disabled fall through loopholes, is well recorded in the Chinese context by Kohrman 2003b). Similar to the benefit office, the categorisation of disability vis-a-vis prosthetic medical rehabilitation actually works against the amputees and those with a below knee amputation who use prostheses are not classified even as disabled. Additionally, almost all unilateral arm amputations are refused compensation. In contrast, bilateral amputees whether upper or lower extremity, are considered 100% disabled and receive a benefit roughly equivalent to €40 a month. In reality however, it is not always easy to claim any of these employment related benefits, as a large number of people in Serbia are engaged in either the black or grey markets. High risk jobs often have higher numbers of black-market workers, which complicates matters somewhat.

Davor

Davor was one of the few patients who I interviewed with an upper extremity amputation. He had been at the Bela clinic for almost a month, having had his amputation 3 months before. He identified himself as a Hungarian (Serbia's largest minority group), from Subotica in the north of Serbia, and said that he was 27 years old. Davor had spent a fair amount of his childhood in an orphanage. His mother was deceased and he was estranged from his father,[33] he had dropped out of school at age 12 and had lived alone since the age of 14. At the time of the amputation, Davor was working as a construction labourer for an unregistered company in Subotica and had had his left arm crushed in a work related accident. Now he is sorry that he ever decided to work there. He tells me that he has no family and no one to look out for him. He desperately wants to sue his former boss, who does not even admit that Davor worked for him. If this is unsuccessful, then he will have no access to money at all. He looks

[33] His actual words were that his father did not 'recognize' him.

frantic at the thought of this, but calms when Dr Sonja (who is sitting in on the interview, as he is her patient) tells him that one of the social workers will help to do everything that needs to be done in order for him to be able to claim financial assistance.

Davor's concern about a job was actually well founded, and while I was living there, the official unemployment rate was at approximately 15%[34] (Statistical Office of the Government of Serbia 2009). From Viktor again I learned that until recently the government had been offering a tax break to companies if their at least 14% of the workers on their payrolls were disabled. However, like so many well intentioned endeavours in Serbia, this had to be stopped as companies had started abusing the system by having disabled people on the books, but not actually employing them and certainly not paying them.

At the time, Davor was entitled to some official financial assistance via his cousin who had a contract with the benefit office to look after him, and should have handed him a small benefit (a little like procedures in a foster home). Davor had never seen or received any of his money and suspected that his cousin pocketed it. He had hoped that he would be able to live with this cousin but felt now that it would be impossible. He was unsure what he would do when he returned to Subotica, where he had a girlfriend to support, he knew that jobs were scarce and said with a shrug that he had had a job offer through a friend to become a bouncer, but now that he was here at the clinic doing his rehab course he would have lost the job to someone else. He sometimes felt that life was hopeless.

To buoy the mood, Davor and I talked about his prosthesis and his progress. As his entire arm was crushed by a crane load of bricks, he was learning to use a unilateral mechanical left above elbow prosthetic limb. It was only his second day with it when I first interviewed him, so he only wore it for about half an hour per day. I asked him what he thought of it. 'It fits well', he said, though he didn't seem so enthusiastic about it and

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[34] The informal (black) economy made up approximately 23% of the working population.

told me that it was just something ‘to fill the empty space’. Although it was a working prosthesis, he seemed skeptical about how much help it could provide. Luckily, he told me, he wrote with his right hand. Davor anticipated being in the centre for about a month to complete his occupational course. Currently he found it hard to put on clothing, and go to the toilet. Dr Sonja looked concerned and told him that surely a nurse should help him with that and could teach him the skills he needed? He just shrugged. Dr Sonja began to tell him a story about a boy born without limbs at all who learned to write with his mouth. He was also in an orphanage when he was small and shared the same name Davor. From the look that our Davor gave her, I gather that this must be a story that he had heard already, but he had at least a smile back on his face as he left for his afternoon therapy. After he had gone, Dr Sonja informed me that sadly the Bela Clinic could no longer afford to offer patients myo-electric arm prostheses. But, she said brightly, mechanical ones could be as successful if the patients learn how to wield them properly.

Davor’s story was not uncommon, working in the informal economy of Serbia meant the possibility of a wage (whether it materialised is another topic altogether). Benefits due to the patients in principle often never made it into their possession. Their access to health care was limited severely by the lack of protection from accident and injury that a job in the formal economy should have guaranteed. This limited their options for the future considerably. The Bela Clinic remained a state run institution, where only the most basic type of prosthesis was covered by the health system. Components and limbs that were standard issue in more wealthy countries were available directly from the Ottobock Healthcare offices in Niš, or from Rudo directly, or from a handful of private dealers (but were not covered by the government in Serbia), So better limbs were only an option for the wealthy and/or those with an extensive *veze* net from which they could draw. Nor was there the possibility to substitute a particular basic component and pay the difference. Everyone I discussed this with thought that this was a backward move on behalf of the government. It used to be, Gordana told me, that the patients could chose a better element and make up the price difference. Now, officially, they would have to pay

for the entire limb themselves. In reality, the prosthetists informed me when I pressed them, they could and sometimes did manufacture some smaller technical components in-house, in addition to customising epoxy sockets, and the occasional wooden ones, but that they were of a worse quality than imported components, and that they were only for patients who weren't going to be walking much anyway. Top quality prosthetic components were available primarily to the army veteran amputees, who went through military clinics that I did not have access to, and from the handful of increasingly private, private dealers who, while initially positive to my research, had become steadily more reticent (until I finally gave up trying to contact them).

During the decade of conflict in the 1990s, there had simply been too many patients to deal with at the Bela Clinic, and the lines between civilian and military patients had become blurred. Some of these patients had ended up in the Bela Clinic, and some were treated as out patients. It was, as Gordana told me 'a crazy time'. No one seemed really to have the full story about what had happened. But then, as I discovered often, and as Čolović has written so eloquently (2002) this was commonplace in Serbia. Events that had happened from the 1990s onward had taken on a kind of mythic quality, and were placed outside of time, they had in effect been pushed away into the 'slushy swamp' (Zivkovic 2007) of the twilight zone, so that it was difficult to see the shape of them in the fog, and as diffuse and indeterminate historical events, they could then take on whatever qualities the narrator wished of them (Šuber 2006).

The history of the Bela clinic, and of prostheses themselves, cannot be taken in isolation from wider historical changes in the nature of rehabilitation and welfare. The principles of physical rehabilitation, and of prosthesis manufacture itself have undergone a series of transformations, as new technologies have become available, whether of material or method. Perceptions of the goal of rehabilitation have also changed, as mutually exclusive desires for aesthetic or mechanical rehabilitation have gradually been bought closer together. However these technologies are often costly, and furthermore, not always appropriate for the settings in which they are deployed, such as in the case of the

Bosnian Serbs, or in the development of the Jaipurfoot. Prostheses are therefore distributed unevenly across geopolitical regions, implicated in, and affected by, the production of social norms. The negotiation of daily life as a prosthesis user requires no small measure of skill, both on the side of the patient, and in the manufacture of the limb itself. The take up of innovations and technologies may also be challenged from within institutions, such as by the Bela Clinic prosthetic technicians, or by patients who find that limbs may be more trouble than they are worth.

The history of the Bela clinic produces its own trajectory of rehabilitation, and statements from the staff such as skill being more important that technology, may also been seen as a necessary guiding principle, considering the lack of access to the latest advances in prosthesis design. In keeping with the many messy transformations of the Serbian geographic state, and confusing relationship between Serbian civic citizenship, and desires for a Serb kin nation, the clinic has undergone transformations that cannot be taken out of historical context.

A (slightly abridged) history of Serbia

Where and What is Serbia?

It is not my intent here to attempt a complete history of Serbia. Such a feat would doubtless completely consume this thesis, and likely as not, still not enhance our understanding of prosthetic citizenship. Serbian history is a difficult object of enquiry, conflated by the elusive nature of what one is actually referring to (Rava 2010). Is the object of study the territory of the Serbian state, or the history of how its citizens have been identified, or do we mean the history of Serb ethnic nationalism? Regardless of which we chose to investigate, these histories are complicated by the multiplicity of state functioning (federal and national) in various conflagrations and manifestations. Throughout recent history, fluxes in geographic territory, the privileging of Serb ethnic citizenship, opaque and occasionally contradictory notions of the Serb ethnic nation and the Serbian State, have been both causative and a result of a multitude of wars and conflicts that have peppered the twentieth century (Rava 2010). In light of these facts, I present instead an abridged history, as it pertains to my own research.

Serbia - the hinterland of the Balkans, on the 'immediate outside' (Jansen 2009) of the European Union; with its long mythic histories, contested borders, subject of many a *gusle*[35] accompanied epic verse, was formed most recently against its own will, by default, a consequence of the breaking away of the state of Montenegro in 2006. With that act, after 92 years in various collectives, kingdoms, and republics,[36] modern Serbia was finally created as an independent state (Rava 2010). From 2006, Serbia has comprised three provinces: the Autonomous Region of Vojvodina, Central Serbia, and, from its own constitutional position at least, the (United Nations controlled) province of Kosovo and Metohija. In reality Serbia has not had any practical sovereignty over the region Kosovo and Metohija since 1999 and the province has existed in a tense political

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[35] A gusle is a one stringed bowed instrument, found throughout the Balkans, which has its own tonal scale and is used as an accompanying instrument to epic saga cycles of battles, heroes, and mythic histories.

[36] 1918-41, Kingdom of Yugoslavia; 1945-63, Federal People's Republic of Yugoslavia; 1963-92, Socialist Federal Republic of Yugoslavia; 1992-2003 Federal Republic of Yugoslavia; 2003-06 State Union of Serbia and Montenegro.

(and economic) deadlock since the same period, when, in a last ditch effort to stop the Serbian government from purging thousands of ethnic Albanians out of the Kosovo province, a breakdown in communication and diplomacy between the Serbian government and the international community reached its peak, culminating in the 78 day aerial bombing of Serbia by NATO forces from March 24 to the 10th of June, and the deployment of a United Nations Peacekeeping force in Kosovo. This conflict was itself the final violent act in more than a decade of clashes that marked the brutal disintegration of: firstly, the Socialist Federal Republic of Yugoslavia, beginning with the succession of Slovenia and the independence of Macedonia in 1991, then war with and subsequent independence for Croatia (1991 - 1995) which also resulted in the violent territorial partitioning of the then tri-ethnic Republic of Bosnia and Herzegovina (which had also declared independence in 1992).

Conflict raged in Bosnia until 1995, initially between Bosnian Serbs, the Bosniak (Muslim) army of the Republic, and the Bosnian Croats, but eventually involving Nato forces, after the massacre at Srebrenica. This conflict, and the state of affairs in Kosovo were the wars of my teenage years, where events such as the Siege of Sarajevo were analysed on current affairs programmes with an alarming sense of detachment, until the signing of the Dayton peace agreement in December 1995, and the arrival of Kosovo Force (KFor) peacekeeping troops into Kosovo in 1999. Although the deployment of KFor troops and the placing of Kosovo under UN protection was never planned to be a permanent solution, continuing disputes in the region have meant that the presence of an international peacekeeping force is still required on the basis of the UN security council Resolution 1244. This resolution itself was recently at the centre of a Serbian complaint to the International Court of Justice about the legality of the events described below.

The relationship of Serbia to Kosovo, (already effectively held in stasis) was further complicated by an incident that occurred just as I was settling into the field in 2008, and another that occurred just after I left in December 2009. Two weeks after I touched down in the Vojvodina, the previously autonomous region of Kosovo and Metohija (already a

United Nations Protectorate) declared itself independent from Serbia. It was the 17th of February 2008, and rumours had been flying in the press and on the radio that an announcement of some sort was going to happen. By the time that our household awoke on the morning of the 18th of February, the international press had whipped up a storm, involving indolent Serbs rioting in the streets of Belgrade and Novi Sad. In the sleepy village that I was currently calling home, it seemed hard to believe.

In the days that followed however, a palpable sense of fury seemed to pervade the air. Strangely though, this anger seemed to be directed not at Kosovo, but at the international community - who, by recognising the declaration, had suddenly given it legitimacy - and at the government, who increasingly seemed too complicit with the European community. In Novi Sad where I was commuting to study at the time, the students organised a protest, marching under the banner 'Косово је Србија' (Kosovo is Serbia). They filled the streets with noise and flags, attracting other, less peaceful protesters and an entourage of police officers, which gave the event an air of danger. The protests stopped all traffic, blocking the streets.

The protests continued over the next week. My Serbian teacher, a masters student in linguistics, sighed one morning as she and I watched the students organising themselves in the grounds outside. 'So young and idealistic...their generation still thinks they can make a difference.' she exclaimed suddenly, and bitterly continued, 'those of us who are now in our thirties know that nothing will change'. I found it profoundly sad at the time, that someone so young could be resigned and so disappointed. However, then history proves her point. The students of Novi Sad have a long tradition of protesting. To even safeguard this tradition, the autonomous nature of the university is such that neither police nor politicians have the right to enter university grounds without an invitation from the student body. Novi Sad was the site of some of the most emphatic protests in Serbia during the 1990s (see Jansen 2000). Rather than try to quash the rights of the students to protest, Milosevic simply imposed a media blackout on them. The students could rage and rant however much they wanted, there would be no one to hear them and

eventually they would (and did) wear themselves out. It would not be until 1996 that they would rise up and demand a change in regime.

In the days that followed 'the Kosovo declaration', various countries came out to recognise the new Kosovo State, led by the United States. The Serbian president, Boris Tadić, who had narrowly held on to his seat just weeks before, and whose liberal, European leaning government had been criticised for its Pro-EU stance - seen by nationalists to be 'selling out' Serbia at the expense of EU membership, came out quickly with a statement that the situation was unacceptable, and that they would fight to prove the illegality of the Kosovo declaration through the International Court of Justice. A surprising move perhaps, given that many in Serbia believed that the court was unfairly biased against them.

While my research did not explicitly involve Kosovo, the rhetoric with which Kosovo is discussed in Serbia begs its inclusion when discussing any citizenship politics. To understand the importance of Kosovo to Serbia, is to understand how Serb citizenship is constituted through territory, but also how the state itself is conceptualised as a body. Now, this conception of the form or shape of the state as a body is not a new idea, as Agnew (2009) has argued. Building on the works of seminal geographers Kantorowicz (1957) and Gottmann (1969), Agnew has shown how the representation of the state as a body, initially of the 'sovereign ruler' not only has its roots in medieval Europe, but that this metaphor both naturalises and normalises the state in one broad sweep. His work, which deconstructed sovereignty also builds heavily upon Hobbes influential text Leviathan (1651) on the structure of the state, and of legitimate governance (by an absolute sovereign). I saw first hand how the state acquired body-like status in the days following the Kosovo declaration, read and heard it made explicit as reportage from both within Serbia and from the international community referred to the 'amputation' of Kosovo from Serbia. I remember an article on the liberal Serbian news channel B92[37]

[37] I regrettably never took the original source down, but even a quick internet check reveals this rhetoric to still be prominent in Serb chat rooms.

even going as far as to say that Kosovo had been the ‘gangrenous foot’ of Serbia, and that for the health of the nation it was probably best that it had been removed.

The anthropomorphising of the state as a body that both gives birth to and shapes its citizens is also brought forth in these descriptions: as mentioned previously, the ‘Sava’ river is often referred to as the aorta of Serbia, and as Čolović has pointed out, in descriptions where the nation becomes ‘embodied in the landscape, individual rivers and mountains have become [...] the spine, the lungs or the lap of the nation-body’ (2002: 130). At the same time as Kosovo was being ‘amputated’, I also heard it said that the province would always be Serbia, even if not a single Serb lived there. This was due to the presence of blood, spilled on the battlefields of yore. The food that grows on battlefields, that provides food and livelihoods, sustains the current citizens of the state, who are therefore nourished (literally) by the body of the nation. In this poetic imagination, states Čolović, Serbia is everywhere that Serb blood has been spilled (2002).

In Serbia, as throughout the Balkans, the desire for national territory is complicated by the enduring ghosts of the historical ‘millet’ system of religious citizenship under which Serbs existed during the period of Ottoman rule following defeat in the 1371 battle of Marista, and on the battlefield of Kosovo in 1389. Whilst short-lived uprisings occurred (sometimes with the backing of the Austro-Hungarian and Hapsburg empires), Serbia remained officially under Ottoman rule until 1817. Under this enforced system of Ottoman governance, confessed non-Muslim communities were afforded the possibility of self governance (provided they pledged loyalty to the empire), based on religious rather than ethnic affiliation. The head of a *millet* was thus religious leader of its people. Various *millets* therefore grouped together quite divergent peoples. The Orthodox one for example, was composed of Bulgarians, Macedonians, Georgians, Arabs, Romanians, Serbs, Vlach and Greeks, despite their sizeable differences in language and ethnicity. *Millet* was established as a legal system primarily, due the fact that the Ottomans did not distinguish between nationality and ethnicity. The fact that it recognised *religion* as the

means of defining ones primary citizenry status, as well as the means of providing the legal and representational head of 'state' continues to have far reaching consequences in the Balkan region.

Given its history and location at the confluence of two competing empires, it is perhaps unsurprising that the defining modern characteristic associated with Serbia is that of barbarism and war. However, these characteristics were not only perpetuated by late twentieth century media reportage, they existed previously, cemented already in portrayals of Serbs from the end of the nineteenth century, through the first and second Balkan Wars, the assassination of the archduke Franz Ferdinand by a Serb in Sarajevo; itself the catalyst that plunged Europe into the First World War. As West readily admits in the preface to her book of travels in the Former Yugoslavia in 1937, 'violence was indeed all I knew of the Balkans: all I knew of the South Slavs (1943: 21). Drakulic (1994) echoes those same words in her look at life in Croatia half a century later. In fact by the end of the First World War the state of political affairs in the Balkans had even led to the development of the verb, 'to Balkanise', an inglorious contribution to the geopolitical dictionary, referring to the dividing of states into smaller and mutually hostile groups.

The Balkans. Even the name that unites the countries of the region was bestowed upon them from outside of it: *bal.kan (*a Turkish word, referring to a mountainous woodland) is recorded in a 1490 description of the mountains of northern Bulgaria, and as various travellers expanded this description to refer to the entire mountainous chain that the ancient Greeks had previously called the mountains of *Haemus*, so it was that the Balkan name crept increasingly into popular usage; and the concept of the 'Balkan peninsula' was coined in 1808 by German geographer August Zeune.[38]

Throughout history, the term 'Balkan' has not only denoted a geographic region however, it has also acquired sociopolitical connotations. Perhaps due to its unstable and

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[38] Zeune used the term to denote territories remaining under Turkish rule after 1699.

contested histories, the region has been framed as a tinderbox, ready to spark, leading to either the collapse of unions, or to their flawed amalgamation. Balkan is a loaded term, and Serbia, in a similar manner to its neighbouring states, builds its identity on histories from which outsiders have been excluded, these histories are contested, told from the point of view of memories. Far from being willing to explain and elucidate, as Šuber (2006), Jansen (2005, 2009) and Van der Port (1998, 1999) all note, 'you don't/can't understand our history' is a claim often levelled at foreign researchers in Serbia (with the implication that one won't/can't if one isn't a Serb). Van der Port even coins a term for this rectitude, terming it 'obstinate otherness' (1998). Šuber simply notes that during his fieldwork

> almost everybody I talked to raised severe doubts, to put it euphemistically, as to whether an undistorted 'understanding' of the Serbian self image and attitude towards their 'other' could be attained by non-Serbs (ibid: 2).

Conversely those who are from outside of Serbia, or the what my young Serbian students called the 'normal' world (which for many Serbs, equates to - western, European, civilised, rational) are perceived as being the only ones who can truly understand the ways in which Serbians are 'not normal' (Jansen 2009, Greenberg 2011). They can negotiate the 'twilight zone', a hazy state that conjures up ideas of the loss of a moral compass, of being outside of time, violence, corruption, backwardness, and the loss of civilised life (Zivkovic 2007).

The Balkans as a geopolitical and geographical entity often appear as 'othered', although, unlike practices of orientalist description, they are often conceived of as masculine, prone to excesses whether they be of warfare, drinking, or passion, framed as corrupted states unable to be controlled or even logically reasoned with, unreasonable and quick of temper (Bakic-Hayes 1995, Van de Port 1999). More recently we can almost certainly add 'traumatised', and 'weakened' (Agovino 2001, Roberts 2003, Jankovic 2006) to this list of contemptible traits - both in terms of individual people and

of state capacity - to see how the continued need for foreign advisors on all matters of state both creates and is legitimated in part by the idea of a specific (Balkan) character (Escobar 1995).

These traits have had consequences within the Bela Clinic as well, although one could well argue that this is a symptom of a more general change in emerging new global networks of western health models. Regardless, within Serbia, as in many countries, the reframing of health vis a vis European regulation has meant that these 'excessive' characteristics are read into the behaviours of patients, so that they become victims of their own fate, their wholeness of body compromised by the excesses of their lifestyles. They therefore become bad patients, and thus immoral citizens, their smoking in hallways, smuggling of fatty foods from home into their rooms, or refusal to partake in therapy, emblematic of a moral failing as well as of failing health (Klein 2010).

Not a non-Serb: Negotiating fieldwork sites and family history

Serbian blood is a powerful symbol in the creation of the meta-narrative of a Serb State, shown not only in official constitutional legal framework for defining citizens (Rava 2010), but also in the daily politics of self exclusion. It is perhaps telling that the claims levelled at Šuber, Jansen, and Van der Port above were never raised with me. For months, I wondered if this was because I was not delving deep enough into the lives of the people who I interviewed, perhaps I was not pushing hard enough with more difficult questions. However, looking back at my field diary, I think that something else was going on. One of the entries was from a visit back to Janko's village, after I moved to another town.

> Hopping off at the town hall, I was hit by a series of memories: the time that Janko's wife and I were stranded here at the bus station in the pouring rain, only 200 metres from home, neither of us willing to get drenched, and both with dead batteries in our mobiles; the night that I had arrived in Serbia, watching the voting in the yellow hall. I'd been here a year. Walking along the street there are the

> familiar smells of bread and pigs, of drying corn piled high in household granaries. A little red *zastava* [39] zips past, 'hey Kate, need a ride?' Jelica, my old neighbour wants to know. I turn her down politely, we're only a hundred metres from Janko's after all. Opening the gate, I notice that the three roses Janko's wife cared for so tenderly are finally in bloom, and the familiar '*Koj je*? (who's there?)' sounds as I knock on the door and let myself in. '*To je samo Kato* (it's just Kate)'. '*Eh, Kato?* (eh, Kate?)*'* Janko's mother opens the downstairs kitchen door. '*Pa Kato, ti si naš! gde si bila?* (oh, our Kate! Where have you been)*?*' she envelopes me in a cabbage scented hug, as the kids thunder down the stairs. There is fried liver, pickled cabbage, roasted peppers and the world's best chicken noodle soup in the kitchen. *Ti si naš*. You are ours; You are one of us; You belong to us.

It made me smile at the time. This collection of friends who had become my family, and the mysterious nature of connections stretching across continents and time, though I had only met Janko once, five years ago. Here, it was comforting, though there were other circumstances where it was more than just belonging, more akin to being claimed, and another field diary entry, though infuriating at the time, showed me how, through my own blood lines. The history of my family flowing in my veins, was viewed as Serbian through and through.

> Last night I argued with a guest at a rakija fuelled BBQ in my neighbour's backyard. The Rakija in question was a 23 year old bottle of *sljivovica* that had come from my own extended family, who I had visited for the first time two weeks ago. Zoran, my landlord, whilst introducing me to his friend, said, "She's a half-Serb". His friend made a joke that there was no such thing. "It's because only my grandfather was a Serb, from Požarevac," I countered. "In that case", said the guest, "you are Serbian". I bristle, saying that if that's the case, I must also be German, English, as well as Scottish. The guest, whilst consuming ever more of my precious family Rakija brushes this logic aside. This is clearly not

[39] Zastava Automobiles was a well know car manufacturing plant in central Serbia, making cars based on 'Fiat' designs, for sale on the Eastern European Market. The company also manufactures small military and sports weapons. The car manufacturing plant was bought by Fiat in 2008, while I was in Serbia, and I remember the newspaper articles both celebrating and mourning the end of the car manufacturing plant - the only one I had ever heard of that was still assembling cars by hand. It inspired equal amounts of embarrassment and pride.

> the case. Why am I Serbian? Because I have the blood of my *father's* father. This Paternal patriarchal Serbian blood is the most important, it negates all other type of identity.

The practicalities of being simultaneously Serbian and not Serbian, extended to the classes that I taught, where most of the students, knowing that I was a native English speaker from New Zealand, simply assumed that I had married a Serb and moved to Novi Sad with him. The non-existence of my husband was not an issue, as students seldom saw me outside of the classroom. There was therefore much scope to manoeuvre within identity politics, due to my status as both foreign researcher and prodigal daughter, returning to the fatherland. This status of returning to the fold was such a positive characteristic that it always tempered my imperfect Serbian[40], although my ability to pick up the language quickly was also ascribed to me being Serbian 'on the inside'. It even negated my (sometimes extreme) lack of knowledge about the many sociocultural facts in Serbia that everyone just *knows.*[41] *Joj*, come on, people would say of me, give her a break, she is only now coming home. '*Ona je naš* (she is ours/one of us)', Bojana would placate skeptical patients in the rehab centre, 'you know, her grandfather was from Požarevac[42].'

Serb and not Serb, but not unserbian. I slipped and slid through these categories, an outsider, but perceived of as having inside knowledge, the opposite situation to what Zivkovic (2000) found as he experienced a sea-change in his PhD direction, whilst visiting family in Belgrade in the early 1990s[43]. Zivkovic notes however the flip side of Van der Port's 'obstinate otherness'. He argues that the rapid change during the 1990s

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[40] I spent a lot of time learning Serbian from Ukrainians and to this day, am often asked if I come from Russia by strangers with whom I inevitably have to interact whilst in Serbia.

[41] For example, I initially relied on Janko to inform me of the name of my family saint and consequently the date of our slava (feast day). I was also questioned at length as to whether my grandfather had been a Četnik or a Partisan during the Second World War, of which, at the time, I had no clue.

[42] Požarevac is most (in)famously the birth and resting place of Slobodan Milošević, associated with Serbian right leaning nationalist politics.

[43] Immediately previous to conducting fieldwork in Belgrade, Zivkovic had been teaching Japanese in Chicago, and planning out the practicalities of his PhD fieldwork research in Japan.

resulted in such a confusing state of affairs that many Serbs felt (and perhaps continue to feel) that their social reality '[was] as opaque to them as to any outside observer' (ibid: 50). In a world where he feels that nothing will stand still long enough for anyone to grasp at what is *really* going on, he resorts to narrative genres ranging from urban folklore, to social commentary and everyday talk, to try to make sense of a situation where 'the authentic could not be distinguished from the cynical' (2000: 57), or from the metaphoric. Van der Port (1998) goes one step further. Rather than argue against his informants who insist that only a Serb can know and understand Serbian history, Van der Port asks what it would mean if we were to accept the possibility 'that some differences between Serbs and Westerners are for real, and unbridgeable' (1998: 9). He has no easy answers, ultimately questioning what it is that we mean in anthropology when we talk about 'understanding' our informants, be they street children in Mexico, lepers in India, refugees from Kosovo, or amputees in Serbia.

The focus on my Serb-ness, and the closeness of it to me was always the most glaringly obvious at the Bela Clinic, where many patients, well into retirement, were enthusiastic about being interviewed. Without exception however, while everyone was willing to talk with me, none were willing be audibly recorded. This made Bojana invaluable to me while interviewing multiple people, as we could both take notes during interviews and compare them. It was also often the case that patients' interviews with me would also involve extra persons, other therapists, prosthetists, patients, as well as physicians, and often interviews involved a mix of me asking patients questions, and physicians checking up on them during weekly rounds. There were many occasions where doctors felt the need to inform me (after patients had left) that the patients were not being honest, or that they were not really giving me the *whole* story before setting me straight. There was very little private space in the Bela clinic, and the same room where I might be speaking to a patient was often being used simultaneously for massage and ultrasound therapies, as well being a staff gym, and housing an extra set of parallel bars for spillover patients from the gait clinic. Actually, there was very little private space at throughout my fieldwork. Offices, patient bedrooms, apartments, were shared, often

pushed to more than full capacity. During one memorable interview that I conducted with four women in their shared bedroom at the Bela clinic all four answered collectively while I interviewed each of them, correcting each other, and interrupting with extra details.

Whilst they were all in their early seventies, they came from vastly different backgrounds, One had been a German factory guest worker, another was the refugee spouse of a Croatian-Serb police superintendent, still another had travelled up from southern Serbia, where she was the widow of a smith who produced bread ovens. The final woman was, strangely enough, neither from outside of Belgrade, nor an amputee. She was the mother of a former patient and good friend of one of the doctors, who had recently had a stroke and lost the use of her legs. Her daughter had begged the centre to take her mother in (as she had been in and out of rehabilitation hospitals to no avail) and the doctors had agreed. They related their individual stories and illness trajectories to me, but, gradually these became embellished with the anecdotes of the others, so that they became epic in scope, the narrators becoming omnipotent, moving fluidly between geographical and historical locations. There was often no continuity of dialogue, and it was difficult to know if the events that the women were talking about had occurred over a series of months, years or decades, a quality that Šuber (2006) also finds present in his research on research on telling stories about trauma in Serbia. The womens' stories, through their augmentation, had all acquired a mythologizing patina of age, whether recent or not.

Out of time, Out of place

As might be expected, in the face of the many negative connotations that 'Balkan' conjures up, many of the nations do their utmost to dissociate themselves from the name, referring instead to regionally defined groupings such as 'South Eastern Europe' or 'Southern Central Europe' (Bakic-Hayden 1995). No one, it seems, wants to bear the burden of the Balkan name. Those on the periphery of other larger unions align

themselves with the more seemly characteristics, more ‘enlightened’, more ‘devote’, more European than the rest of the Balkans. A kind of geo-ethnic political hierarchy of ‘westernness’ is thus created from within the Balkan Peninsula as well as from outside. But by whose rules do we play? Should Romania and Bulgaria be considered outside of the Balkan boundary? What about Slovenia? Tito’s Federal Republic of Yugoslavia had been Balkan through and through, all ‘brotherhood and unity’, but now that it was separated, Catholic Croatians distinguished themselves from the ‘dark heart’ of the Balkans: Orthodox Serbia. Serbs from the Vojvodinian plains, formerly under the Hapsburg monarchy distinguished themselves from those from areas formerly ruled by the Ottoman empire, and in return, the Orthodox Serbs distanced themselves from European Muslims. Each one distinguished themselves as ‘less Balkan than the rest’. For a period during my fieldwork, I began secretly to wonder if the Balkans really even existed, given the nature of these assertions. I wasn’t alone in this speculation, as Todorova (1997, 2005), Bakic-Hayden (1995) and Green (2007) all note, a type of oppositional identity exists: a ‘wavering form’ between categories of east and west and as Bosković points out, ‘the question of location is central here: what and where is ‘the Balkans’, who decides, and on what basis?’ (2005: 8).

In a series of fascinating articles and books, these four scholars have, in their own ways, shown how the Balkans has in reality functioned has Europe’s ‘other’ for generations. Indeed, coverage of the violent clashes and antagonism between groups on the Balkan Peninsula can be viewed as a continuation of centuries of instability that only seem to reinforce the ‘otherness’ of the region. In these meta narratives, have not these same groups been hacking each other to pieces for the last millennia? Isn’t it simply in their nature? It appears all to easy to blame the bloody violence that marked the last decade of the century on ethnic difference, a hugely ignorant reducing of historical, political and nationalistic processes that created the conditions in which such atrocities became possible. In media reporting of the Yugoslav wars, as with the contemporaneous Rwandan violence, ‘the idea that genocide was the result of primordial bloodlust’ rather than a modern premeditated, well-organised attempt to annihilate another group of

people ‘was, and remains, prevalent’ (Gourevitch 1998: 64). The Serbs especially, as Bosković notes, have ‘been vilified since the early 1990s and associated with the beginning of the atrocities in the former Yugoslavia’ (2005: 9, see also Collin 2004 [2001]).

Listening to the radio in the days immediately after the Kosovo declaration I was struck by the dialogue of the politicians. It seemed to me that there was very little talk of whether Kosovo should or should not be independent (in hindsight most probably because it was self evident that they should not). The discussion was all to do with the legality of the declaration. Kosovo had after all declared itself independent before in 1990 to little avail, and had been under a UN mandate since the NATO bombardment in 1999, a kind of no-mans-land caught in limbo. So what was different about this time? For many Serbs, it was the speed at which many states recognised Kosovo, and the perceived violation of the laws that the United Nations had itself laid down for the governance of the province. Never before had I seen a UN stipulation, the ‘1244’ mandate, dissected in such minutiae by people of all ages and political persuasions. In the tiny kitchenette of the family I was living with at the time, the 8 year old son summed up the fears of the nation with a wail:

> Next Vojvodina will turn independent, and then what will Serbia become? Just Belgrade and Central Serbia?

For the conservative nationalist leaning parties, this was the fear, as a small but resource strong nationalist Hungarian minority had slowly been advancing their own agenda in the northern parts of the Vojvodina, which was gradually having the autonomy that it lost under the Milosevic government reinstated. For others, the situation immediately post declaration highlighted the perceived blatant disregard for convention by the UN - was yet another in a string of attacks against Serbia, by an aggressive and anti-Serbian Europe that changed the rules as it pleased, violated international law and wished to see Serbia cowed. Even for the democratic European leaning parties, it was a bitter pill to swallow. A message had been sent. There was no European future for Serbia while

Kosovo was within its borders. ‘We will keep moving toward our Europeans goals’, stated President Tadic, ‘but on the matter of Kosovo we will have to agree to disagree’, earning him the title of ‘sell out’ from the nationalist right parties and ‘nationalist’ from the European looking liberals. ‘1244’, ‘1244’, on the radio, muttered in the bus, written in the news, I heard it everywhere. The 1244 resolution confirmed the sovereignty of the Serbian State over the region, but also called for a substantial degree of self autonomy and meaningful administration for Kosovo. In the resulting ICJ advisory opinion verdict, it was decided by a majority vote that the declaration was according to international law, and did not set an international precedent. This ruling itself, though, it must be said, has had little practical effect, unlike the acceptance of Serbia to the Schengen (visa free) travel area in 2009. Serbian citizens were granted entry to this reciprocal travel agreement, but only with provision that they carried new biometric passports, and only on the understanding that citizens resident in Kosovo would not be included in the scheme, thereby forcing the state to accept a split in its sovereign status. Also required were the capture and extradition of Serbia’s last remaining war criminals. Indeed, in the months before the Schengen and European trade settlements of December 2009 a cat and mouse game appeared to be played out, by the Serbian Government, and the European EU expansion advisory committee. The latter accused Serbia of not making enough ‘progress’, vowing that Serbia would not acquire a position on the ‘white’ (Schengen) list or even be considered for candidate status, and then the former would miraculously capture a war criminal. Tit for tat.

Unravelling and understanding the how’s, when’s and where’s of the transformation of the Serbian nation is a task that rapidly becomes politically embroiled in the history both of the Balkans and of countries far outside of the region. The shifting alliances, rulers, borders, and movement of populations mean that history becomes a contested space to which many groups lay claim. A popular saying in Serbia is that the country lies on the crossroads of Europe, which is not so far from the truth, and while it is beyond the scope of this dissertation to attempt a broad history of Serbia, I can say that there are a great many books on the history of the Yugoslav nations published in the late 1990s and early

2000s, of various quality and repute (Djokic 2003), written mostly with a view to understanding how the violence that defined the end of the 20th century was made possible in a rational and enlightened world. Some of the more academically informed and useful for understanding the past century have been Todorova (1997), Lampe (2000), and Wilmer (2002). More recently a multinational and multidisciplinary team of scholars writing on citizenship from within the Law School of Edinburgh University[44] have begun a 'comparative and contextualised study' of citizenship in the states of the Former Yugoslavia, in today's climate of EU enlargement and uncertainty, which have been particularly illuminating. The working papers of Rava (2010), Vasiljević (2011) and Kacarska (2012) have been of particular interest, and go some way to untangling the hugely confusing genealogy of Serbian citizenship.

As CITSEE is a research unit set up with the explicit aim of studying the legal effects of that Europeanisation on citizenship, it should come as no surprise that all three working papers deal with the consequences of legislation. What is more surprising however is the ways in which these three scholars outline the same themes that become apparent in my of my own research. Rava's (2010) work outlines the problems of citizenship that have occurred due to the lack of both well defined consolidation between nation and state, noting that current constitutional citizenship regimes in Serbia attempt to reconcile European demands for the implementation of a multiethnic state,[45] with ideas of civic citizenship that also seek to promote the historic creation of a Serb kin-state (ibid). Unfortunately, by attempting to please everyone, the regime's ambiguous stance -

> fails in responding precisely to the question of *who* are current and potential citizens, and *what* and *where* is that state with which the citizens are supposed to have a relationship. To illustrate this confusing situation, theoretically speaking, a large number of people from the Balkan region could become citizens of Serbia, but at the same time,

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[44] The Europeanization of Citizenship in the Successor States of the Former Yugoslavia (CITSEE) Team, Funded by the European Research Council.

[45] Kacarska (2012) writes about how anti-discrimination legislation was one of the prerequisites for the Visa liberalisation agreement in 2009.

> Serbia discriminates against its citizens with residence in Kosovo that, in turn, it claims is merely part of Serbia (ibid: 30).

Vasiljević (2011), examines the meanings of Europeanisation in Serbia, looking at the ways in which 'progress' toward joining the EU has been affected by a lack of consensus in the political culture of Serbia, and how this lack of consensus is also mirrored in 'substantially incoherent' public opinions (ibid: 26) Vasiljević finds that there is a discrepancy between 'cognitive support' (ibid: 26), defined as the rational insight as to the need for integration into the EU, and 'Emotional Distance, provoked by negative experiences of UN sanctions and NATO bombing' (ibid: 26). While European integration is generally perceived of an ultimate goal, among the public, the actual means of making this will happen are much more hazy, promoting scepticism and criticism (ibid). Vasiljević also shows that Europeanisation, in its much broader sense of promoting the values and institutional models of the EU, shapes just about every major social or political act in the country, whether one thinks of them in term of progress made, or never ending forms of conditional hoops that Serbia is forced jump through, for the persuasive dangling carrot (Bartlett 2007) of future EU membership (Vasiljević 2011).

Kacarska (2012), the most recent of the three, writes on the effects that the Visa liberalisation scheme, that was implemented in December 2009, just over 4 months after I returned from the field. Since that date, all Yugoslav successor states not already covered by EU agreements have been admitted into similar visa-less travel agreements with the countries covered under the Europeans Schengen agreement. All, that is, barring Kosovo. In affect, Kacarska notes, 'the visa free travel for all of the countries has facilitated the isolation of Kosovo citizens, who do not benefit from visa free travel' (ibid: 21). The exclusion of these Serbian citizens, based on their geographic residency, has the potential for numerous practical abuses of the system. A major focus of Kacarska's work is on how the relaxing of the EU boarder, is conditional on the tightening up of the physical border checks, so that in effect, border officers end up conducting informal ethnic and economic profiling on citizens leaving the country,

something that I see as connected to fears of too much mobility, and of messy transient borders.

Regarding anthropological tradition from the former Yugoslav region, Bosković (2005) notes that scholars from all three [sic] of the dissolved states have come from a tradition of anthropology and ethnology 'at home'; *their* history, *their* people, *their* ethnic background (a point also raised by Van de Port in 1998). He writes further that this auto-ethnological approach to history has had the effect of placing the 'pure' and 'noble' peasant in the heart of Balkan mythology and creating a romanticised view of the distant peasant past. This emphasis on the peasant character perhaps influences the dichotomy of the 'Backwards Balkans' always looking back, compared to the forward looking west. For many he writes, across Serbia, the corrupted lifestyles of city dwellers were evidenced in the fact that they 'so readily adopted elements of foreign cultures' (Bosković 2005: 10). From each of the former Yugoslav Countries, academics take the stand 'that "their nation" has been unjustifiably victimised in recent years, and have taken it upon themselves, as chosen interpreters of the "national culture", to set the record straight' (Bosković 2005: 8). History is a contested place, where the tale is always told from the winners of battles. The victorious take history for their own, and thus are also victorious *because* of their history and moral character (Wolf 1982).

One thing appears clear, certainly in the face of such a show of international condemnation, it would appear that the right to history was removed from the Serbs in much the same way as the right to suffer was taken from the Germans after World War Two, the results of which have had far reaching consequences for such health related areas as organ and tissue donation and treatment (see Hogle 1999 for a full explanation). Additionally, as quickly as the Balkan clashes were thrown into the media circus, occupying as they momentarily did, our every dinner time discussion, they seem to have disappeared from the global stage, left forgotten again at the periphery of Europe by a world community which has moved on to the more pressing worries of suicide bombers within their own borders and the pervasive wars of terror; leaving them to wallow in its

misery. This perhaps is the key to understanding how the Serbs, as Bosković notes, have also come to see themselves as victims, a position that many outside of the region do not understand (2005). Perhaps this is also why Van de Port's informants so obstinately exclaimed that only a Serb could know and understand Serbian history (1998, 1999). The collapsing of time, the denial of legitimate history, the blending of myth and martyrdom with present reality, and the shifting identities of citizens do not make for easy research.

This collapsing of time is a recurring theme in both histories and ethnographies of the Balkans. There is a tension inherent between the contrasting ideas of reviving national traditional values post Tito's Communist Pan Slavic brotherhood, and becoming incorporated into the European community. Zivkovic's 'twilight zone' arguably dates from when prime minister Đinđić
paid the ultimate price for the capture of Milosevic and was assassinated outside parliament in 2001 (an event that not only martyred him, but also heralded a stagnation in economic and socio-political progress), and the Serbia of today remains in many ways crippled by war, economic downturn, years of international sanctions, an inability to discuss the past and an uncertainty about what the future will bring (Tosic 1992, 2002, Roberts 2003, Collin 2004). It is a place where 'everything is permitted, and nothing is permitted. Where anything is possible and everything is impossible' (Collin 2004 [2001]: 1). Echoing this sentiment, Milica Bakic-Hayden describes that

> The whole history of these peoples, whether common or individual, has become simultaneous and idealised… They have ignored the presentness of the present and the pastness of the past, creating a kind of 'primeval present of the *volk*' with heroes from remote history either identified or appearing side by side with those of more recent history (1995: 923).

What to make of the twilight zone, of Zivkovic's 'slushy political swamp' (2007)? Is it solely a feature of the post-conflict Balkans? Crapanzano (2003), while discussing the nature of hope in his ethnography of white South Africans during the end of the

apartheid, suggests that they existed in a state of paralysed waiting, and, moreover believes that they found refugee in this 'sustained and indefinable waiting, [where] they were removed: they were not responsible' (ibid: 18). He notes further that this dual world was one of hazy dreams and hopes, far removed from the real and pragmatic ways that they went about their daily lives.

Many of the features of the twilight zone are not of recent construction; for example, the idea of an unspeakable past was made real in Tito's post World War Two communist Yugoslavia, where nationalist sentiment was prohibited and nationalist uprisings actively purged. As it was again through Milosevic's political regime from 1981 onwards. Writing in 2000, before the fall of Milosevic, Prosic-Dvornic notes how the government had been actively exploiting this lack of historicity.

> Imagining a "people with no memory," [it created] a façade that includes the pretence that life in Serbia has always been peaceful and normal. The regime acts as if the front lines in Bosnia not more than 100 kilometres away never existed. As if the flows of refugees - homeless, displaced people with only memories of the past life and no feasible future - never existed. As if the handicapped young men, survivors of the war in Croatia, missing limbs, in wheelchairs and on crutches, trying to live with their nightmares, desperately wanting to pick up the pieces of their shattered lives, did not exist (Prosic-Dvornic 2000: 334).

Theorists such as Niethammer (1992) and Brantlinger (1998) have speculated that this process signifies the entering of a type of 'post-history' where hopelessness is bound up in tragedy, presumption and a decline of individualism during political warfare (Brantlinger 1998). As history is associated with progress, the post-historical nation becomes the stagnation of progress. Although much of what the Serbs are doing seems to be attempting to reclaim history from post-history, I am wary of such an oversimplification of this claiming of historicity. For two reasons: the first is the prevalence of collapsing historical fact into categories of epic storytelling in Serbia in much the same way that my four interviewees did for me. Čolović (1994) has

documented this particular trait amongst politicians, noting that the use of epic storytelling structure, (where the narrator assumes an omnipotent position) gives an air of all seeing legitimacy to political speech, and dispenses with the need for concrete facts. Šuber (2006) notices among his informants a tendency to not distinguish between actual and mythical history, so that recent events (like my interview in the women's bedroom) assume mythologising qualities.

Mostly though, I feel that that in much the same manner as Crapanzano's South Africans, many of my Serbian acquaintances were simply unable to envision a solution to the situation that they found themselves in, and that, as he terms it, 'they had a hope so indefinite as not to have an identifiable object. As such they could not turn it into effect desire' (Crapanzano 2003). For me, this appears to hit the proverbial nail on the head. In Serbia this state of fogginess absolves the need for real discussion and thus enables the nation to ignore the call for Serbia to take responsibility for many of the actions carried out in its name during the 1990s. At the same time, this period of being 'out' of time and 'waiting' means that a plurality of European futures can be imagined, bought forth through the haze, while the specifics of actual policy are allowed to fade into the background.

Rather than contested histories of 'balkanised' clean homogeneous territories, Green (2007) maintains that within the Balkans the issues are those of too much hybridity, of messy areas and ambiguities that exist in the marginal spaces between clear boundaries. This crossing of boundaries, or more specifically, the right of both people and goods to cross borders is the other event that I referred to above, that *has* significantly altered the Serbian State in the time since I began my fieldwork. A couple of months after I had returned from fieldwork, the EU both unfroze its trade agreements with Serbia and admitted Serbia to the visa-free 'Schengen' travel scheme, on the 7th and 19th of December 2009 respectively. This, as my friends all pointed out to me, and as Greenberg has published (2011) was seen by many as an important step to Serbia becoming a 'normal' country. In fact, the positive effect on Serbia's desirability as a country of

residence, (as perceived by residents of the other former Yugoslavian countries) that the abolition of visas (under heavily prescribed circumstances) has had, show us just how complicated Serbian State citizenship has become (Rava 2010).

Health at the crossroads of Europe

How a desire for membership within the European community affects both the desire for, and the provision of health and welfare services in Serbia is a question that underpins the process of this investigation, not least for its impact on the provision of both prosthetic components, and practices of rehabilitation. Dunn (2005) has shown how the effects of EU standardisation of food production have mapped new hierarchies of power onto older existing networks of trade in Eastern Europe. She has shown how those bodies and objects that fall outside of these new networks create a type of non-network. Citing Istven Rev she writes that phantomised farmers create a type of shadowy 'non-economy, food that cannot be found, grain that is never harvested, land that is non-existent. This resistance is the non-event, the means is the non-object, and the actors are anonymous' (2005: 187).

I feel that in a similar manner, a type of non-health system exists in countries such as Serbia, where a decade of international sanctions, misrule, corruption and the 11-week NATO bombardment of 1999 damaged the health infrastructure and the economy (Redmond 1999, Kunitz 2004). Before I left for Serbia, I had read that although patients in Serbia are required to make official co-payments to health bodies, better health care is primarily achieved through additional 'payments' that guarantee the services of health workers and pharmacists (Stevenson 2003).

I will readily admit that I was both eager and a little apprehensive to see how this system might work, and so (in the interests of ethnographic research) I decided to have a wisdom tooth pulled at the state dentist. Janko's household was galvanised into a flurry of action by this request, as first we had to find a dentist with whom we had some family

connection, which happened to be the one at the university. We went to visit, without an appointment, stopping at a kiosk to pick up ‘gifts’, coffee, juice, and some chocolates (total cost 600 Din). I asked Janko what these were for, and he informed me that far from being bribes, they were signs of appreciation. The state pays the workers in the health system very little, and so the gifts are a way of making their lives better. In fact, the giving of gifts for just about any service rendered was to be a regular occurrence during my time in Serbia, and the lines between bribery and gifting are ambiguous. In any case our dentist referred my case to his colleague, a dental surgeon, and she agreed to take out the offending tooth the next day for the cost of 2000 Din, though first I would need to visit a private radiographer (also a friend of hers) and have a photo of my tooth taken. Everything was paid in cash, no patient names recorded. The surgery and follow-up recovery went excellently. I joined the informal health sector.

The WHO estimates that additional ‘payments’ such as those I made may account for up to 49% of total health expenditure (Stevenson 2003). In the same document, the World Bank estimates that 10.6% of Serbs living within Serbia live beneath the poverty line and that one-third of the population live on the poverty margin. With a GNP of approximately US $1400 per capita (in 2007) this means effectively that Serbia has gone from a moderately well developed country in the late twentieth century to a lower income one by the beginning of the twenty-first. Kunitz describes Serbia as a pharmaceutical vacuum (2004).

Stevenson’s research for the WHO makes the claim that restrictions to pharmaceutical and hospital supplies have left the already struggling health service infrastructure woefully inadequate for an internal population of 7.5 million, some 330,000 of whom are refugees from neighbouring lands and a further 240,000 of whom are internally displaced (Stevenson 2003, although the WHO acknowledges that these figures are likely to have been overestimated) Furthermore, the effects of almost a decade of conflict not withstanding, the adverse effect of economic transition alone on health services in Central, South and Eastern Europe has been well documented, not least by

Adeyi et al (1997) who cite four main contributing factors to this deterioration. First, a reduction in real income, and second, stress and stress related behaviour as a result. Third, a reduction in real public spending on health leading to a breakdown in basic health services, and lastly lax regulation over what infrastructure remains. Coupling these factors with the increased flow of injured and traumatised bodies from the conflicts in the last decade of the twentieth century paints a bleak picture of the health services in Serbia. Additionally, in its health profile of the country, the WHO singles out three particularly 'risky' areas of health to target in Serbia: tobacco, HIV/AIDS, and tuberculosis (Stevenson 2003, Rhodes and Simic 2005).

Serbia began what was essentially a series of social democratic reforms at the beginning of 2001, based on two basic principles, the first that the insider privatisation of state assets that had been occurring throughout the 1990s should be stopped and that privatisation of the remaining assets should become open to pubic tender. The goal of the government was essentially the creation of a fully fledged market economy based on liberalisation and private property. The second was the creation of a strong social policy that would soften the blow for average citizens and win the population over to what would surely be a drastically unpopular series of reforms. Unfortunately with the assassination of the driving force of these reforms, the then Prime minister Zoran Đinđić, the process of transitioning slowed, and newly privatised companies slid into positions of monopoly, as weak ideas of market competition were beginning to take root (Crnobrnja 2007). Remaining state institutions, many of them health and education related, continue to struggle from large yearly deficits, requiring large subsidies from the government, which then impinges on their ability to push much needed money into the social sectors. This has in effect allowed large private companies to capture the state, as it were (Bartlett 2007). Ottobock Healthcare is one of these companies.

Ottobock Healthcare was, ironically enough, founded in the same year as The Prosthetics Company of the Kingdom of Serbia, and for the same reasons. Though it was a young German Prosthetist by the name of Otto Bock, rather than a French organisation

who proved to be the catalyst. Ottobock, along with being one of the largest prosthesis and orthosis manufacturers in the world, remained for much of its history, a family driven firm. The company began unofficially in Serbia in 1976, originally as an outpost of the Slovenian branch, and unofficial the office remained, until 2005, when it was formally opened. During my fieldwork I traveled to the brand new Ottobock office in Niš, Serbia[46].

Having seen Ottobock products throughout my research, I was surprised to find that there were only 12 people employed in Niš, most of whom were doing research on prostheses. Their biggest selling products in Serbia remain feet, as well as both mechanic and hydraulic knees, as the director tells me that there are no competitors with the same quality components. Regarding the cost of prostheses, I learned that regular civilian amputees could apply for a 'scholarship' to get a limb, but that most of the company's hands on work was with the military amputees. Their monopoly over the public market was not quite complete however, and from Rudo I learned that private prosthetists occasionally made use of components from a variety of other companies, when they were available[47].

Like many countries in transition from socialist regimes to market based economies, a new standardisation of international health practices has been implemented, allowing new classes of risky citizens and risky practices to emerge in much the same way as the creation of Dunn's risky food production practices (Mastilica and Kusec 2005, Dunn 2005). The alleviation of this risk (whether health or economic) is often a concern for countries entering into the European Union, where supranational neo-liberal political economies create forms of risk that are mapped onto and indeed often supersede

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[46] So new that it was 'bez broja', meaning without a street number, like so many companies that had sprung up too quickly for local government to provide addresses for them, or were semi-legally occupying premises.

[47] Occasionally shipments from suppliers such as Such as Bauerfind, Sigma Medic, and Philadelphia would be available

capitalist economies. These in turn are implicated in the power relations between nations (Beck 1992, 2005).

Dunn's analysis of risky categories applied to the capability of Poland's national infrastructure to deal with such ecological and pathological outbreaks as Bovine Spongiform Encephalopathy (mad cow disease) and 'foot and mouth' disease shows us the practical effects of this. Additionally, Petryna's (2002) research into what she describes is a biological[48] citizenship enacted by Chernobyl survivors in the newly formed Ukrainian State takes this same analysis to another level in which pathological risk becomes a factor for defining the character of the state. In both cases, actual risk factors are not altered, rather it is the capacity to contain and control citizens relative to these risks that changes.

Despite the continued and arguably escalating presence of infectious disease, the main causes of death in Serbia are chronic, those commonly associated with lifestyle. There is a high incidence of cardiovascular disease and cancer, especially lung cancer. The WHO estimates that 60 percent of adults in Serbia smoke, and notes that that tobacco advertising is pervasive and noxious, targeted at children, 23% of whom are estimated to be regular smokers (Stevenson 2003). The lax regulation concerning the sale of tobacco to under 18s, and a significant black market in tobacco are seen as undermining the rigorous antismoking measures needed to halt what the WHO terms a 'tobacco epidemic'. All these lifestyle behaviours are themselves predictors for illnesses that have the potential to result in the amputation of a limb, usually a leg, should they remain untreated over long periods of time.

Hjelm et al. (1999, 2005) have repeatedly studied the beliefs about health that are essential to diabetes self care amongst different ethnic migrant groups in Sweden, among them former Yugoslavs. They found that their ex-Yugoslav patients often had a more

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[48] though I see it more in terms of a shared understanding of pathological threat - and biological citizenship brings to mind practices of eugenics.

'fatalistic view of the disease in terms of factors lying beyond one's own control...often related to supernatural explanations' (1999: 1157). They also note that their female patients emphasised the importance in health: of living for enjoyment, or taking one day at a time, and that retaining traditions (such as food) help to give strength and security. The women that they studied also expressed beliefs about health that emphasised the freedom to enjoy food, and to deviate from diets (ibid). The men were more likely to link health to financial stability (or wealth even) or simply as 'the most important thing in life' (Hjelm et al. 2005: 53). Hjelm et al. refer to these perspectives as salutogenic,[49] which they then propose might go some way to explaining patient behaviours after diagnosis. Finally, they suggest that among (former Yugoslav) immigrants in Sweden,

> health was described from an action-theory point of view, where good health is defined as having the ability to act in accordance with one's plan in life, and being able to behave in the best possible way under the prevailing environmental restrictions (2005: 53).

Health statistics for Serbia available from the WHO and from DFID appear to show this same categorisation of risky states. It is health infrastructure (or the lack thereof) that primarily creates risk in the Balkans. For example, HIV/AIDS antiretroviral drugs were 'virtually unavailable' in 2003 and the availability of diagnostic tests varied in quality and quantity (Stevenson 2003). Regarding tuberculosis, Serbia only implemented the WHO DOTS (Directly Observed Treatment Short-course) program in Belgrade in 2002, and a nation wide coverage programme was begun in 2004. The continued presence of refugees is a further source of TB risk. There are still large numbers of 'internally displaced' citizens in Serbia. Ho's (2003) work on migration and TB risk shows that the conditions of forced, illegal and refugee migration can prime the body for TB infection, as can the conditions of poverty in refugee centres. As most refugees and displaced

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[49] Salutogenesis: this term coined by the sociologist Aaron Antonovsky (1979) is a stress resource orientated concept, which focuses on action and interaction, and tries to find out why some people maintain their good physical and mental health despite stress and hardship. Antonovsky proposed it as an alternative to the pathological model of health, which focuses on the absence of disease.

persons have no option to return to their homes, they are left only with the option to remain, becoming sick and diseased. This systematic oppression is what Farmer refers to as (2003) structural violence, meaning those bureaucratic and socio-political barriers that stop the already poor and disadvantaged from accessing health care and welfare support.

At an even more basic level, the way that the doctors in the Bela clinic actively discouraged older amputees from walking on prostheses with a mobile knee joint can be attributed to this same perception of structural 'risk'. To be able to use a mobile joint safely means that the patient must have a feeling of trust in their relationship with the prosthesis, as during ambulation, there are periods (after heel-strike) where the knee collapses and swings forward. The patient must be able to support themselves with their other leg, if there is an unplanned collapse of the knee. Now, a patient's risks of falling in Serbia are neither greater, nor less than in any other country. The capacity however to deliver follow-up care, the long distances that many patients had travelled, the general poor physical and mental status of the patients, and the long stays required in the Bela Clinic meant that questions of physical safety trumped the prosthetists and the patients desires for biomechanically normal mobility in many cases.

The very 'Balkan' nature of the illnesses of consumption and excess creates a power differential in the slow transitioning of the health system. The Serbs, it would seem, do not make good citizens when it comes to self-regulation and government of the self (Foucault 1979). This seeming deficiency of moral character then appears to be projected upwards to a state level, delegitimising the governing capabilities of the Serbian nation state, and meaning that Serbia itself becomes a potential risky member for the European community. In light of this, I wondered how all these people went about performing 'normal' life: Janko, my amputee informants, and the staff of the Bela Clinic.

A Normal Life

Inside the twilight Zone

While in Serbia, I met a great number of people working in positions (both informal and formal), who were sometimes not paid for months at a time. They were stuck, unable to quit, for in so-doing they knew that they would never get paid. So they worked on, in the hope that everything would right itself eventually. I wondered in all of these cases, where the breaking point came, how one might decide that one cannot devote more of one's life to this. When do people realise that they might never get paid, or that a court case could never be won?

Once, toward the end of my fieldwork, I found myself on the Novi Sad to Bar (in Montenegro) overnight train. A friend and I were observing that despite the many things that locals complained about the trains, we had never actually had an unhappy experience on board, and that the only thing that was really missing was the possibility to buy a cup of coffee. Despite having spoken too soon, and having managed to enrage immigration officials at the border, to our delight, early the next day as the train slowly lurched through the Montenegrin mountain ranges, the conductor cautiously asked if we would like 'domaci'.[50]

Over steaming cups of black gold, he explained to us that he hadn't been paid for 6 months, but that he loved his job and didn't want to quit. Instead he had come up with a little unofficial business to make some cash on the side, hoping that no one would report him, and after all, why would they? He was offering a service that many were grateful for. As for many people, the 'twilight zone' had created abnormal life conditions in which good people were forced to behave unethically (Greenberg 2011). What would he do if he never got paid? We asked, while ordering refills and tipping generously. The conductor simply shrugged his shoulders, telling us that he preferred not to think about it. It was a delicate balance, he told us, if one worked for the state, there was at least the possibility that at some stage in the future there might be back pay, which was better

[50] Home made (domestic) Serbian coffee.

than quitting and missing out completely. Working for a private company was much more risky, the pay might never come, the company might fire you, or simply all go up in smoke before anyone ever got paid.

Janko

'Serbia is in a twilight zone...we are waiting for something like normal life...'

Janko was in a melancholy mood, it was 2am in the morning and we were walking home from a birthday party, where much of the talk had been on the state of affairs in the university departments, in local government, and in Janko's household. There had been domestic wine and rakija, a 'Swedish table' of cold meats and salads, and a troubadour in the lounge. We had danced and sang and clapped until dead on our feet. The birthday had been for an 8 year old friend of Janko's son, and present were an assorted mix of their friends and relatives, old and young, academics, farmers, professional athletes. Serbia certainly seemed like a twilight zone that night, where, by and largely intoxicated, I'd been talking in my almost non-existent German, as well as English and Serbian. Like everyone else, I'd eaten and drank more meat, mayonnaise and *medovača*[51] than could possibly be good for me...

Now, in the middle of the night, in the middle of the road, in a village out in the slow backwaters of the long drained Pannonian sea, I felt hopelessly lost. I trailed Janko's dreary monologue on the ongoing 'bad situation' of Serbia as he led the way home; the flat black landscape, the deeply shadowed buildings and the quantity of alcohol consumed doubtless contributing considerably to my confusion. As we walked into the wind, the cavernous sky seemed to grow even more oppressive. Snowflakes swirled around our heads, illuminated by watery street lamps. Fallen, they drifted along the road in eerie shifting formations. The *Korševa*[52] tore into our jackets. Two thoughts jostled

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[51] A rakija made from honey.

[52] A particularly vicious northerly wind that blows across the Pannonian flats from central Russia.

for importance in my mind. The first, I wished I had gloves with me, and hunched my hands as deeply into my pockets as I could. The second: what did it really mean, to be waiting for a normal life? Time and time again during my stay with them, Janko would repeat words to the same effect, that he was waiting for something like normal life. The more I thought about it, the more I wondered what he really meant. What is a 'normal' life?

Janko was a fourth generation Serb, and was in his early forties when I stayed with him. His mother is a Bosnian Serb and his father's family origins were originally from abroad. Janko had left Serbia at the beginning of the 1990s to study abroad and, having missed the worst of the breakup of Yugoslavia and completed a PhD at a well respected university, he returned home in 2000 with his wife and young daughter to work as a lecturer at the local university. By the time that I was in Serbia, Janko had however been out of work for six years after discovering that the university faculty where he worked was accepting bribes for marks. While I lived with his family, Janko spent most nights trawling the internet that I had had installed, trying to find work outside Serbia, because, as he liked to repeat, 'there is no future here'.

Janko had taken his faculty to court, and was certain he would win his court case. He had been fighting to get his pay ever since it had become apparent that the university would not let him work out his tenure, as the department had broken contract when they expelled him. The case revolved around an unfair dismissal, where Janko had refused to become embroiled in a scheme where students were paying for degrees, which he called corruption. When he refused to take part in the scheme, the department had closed rank on him, barring him even from entering the building to retrieve his *radna kartica.*[53] Without his card, he could not show that he still had a contract, and without the evidence that he had a job, he was unable to apply for visas to visit many of the colleagues overseas who he had previously been working with, nor was he able to attend many of the conferences that had accepted abstracts for his articles. He described

[53] Work employment index card.

the department like a mafia, and in terms of *veze,* which he equated as something akin to nepotism or cronyism.

What saddened me most about Janko's history was the fact that, jobless, almost destitute and effectively blacklisted from working for other educational institutions, he had become the very thing that he had fought against. To drum up a bit of income, he would occasionally write masters theses for cash payment, with the understanding that he and the student involved would then be able to publish the results jointly. This moral compromise seemed unproblematic to him, and he felt it was the only option available; to be honest I think that he was simply glad to be researching and writing with a purpose, and he used the students as a way to access the university library and databases. Throughout the process however, I was constantly astonished by his conviction that he would prevail against the university as an institution, which he also described as a 'mafia'. He felt that he had been dealt an unfair and unjust blow. He was also certain that if he tried hard enough, if he pushed and scraped and presented enough evidence, then justice, which was clearly on his side, would prevail.

Herein lay the problem, because officially he had already won his court-case, only to have it overturned by the education minister later. It came down to a question of legitimate evidence. One could keep adding increasing evidence to the stack of files, but he was fighting in the wrong court. Universities in Serbia remain autonomous legal institutions, with laws that guarantee freedom of speech and action. On the surface, this legislature provides the students with a right to dissent and to protest, as both politicians and police must apply for permission to enter campus. The flip side to this is that the universities are subject to their own governance outside of the law. For Janko, this had the consequence that it did not matter if he won his court case outside of the university, as the department was only ever going to be morally obliged to pay him his salary and reinstate him. Given the reasons for his dismissal, I, like his wife and friends, felt this was extremely unlikely to happen.

It was an uphill battle of such magnitude that I felt he was never going to win. I was not alone in this opinion, and among friends and family, he was often the topic of conversation. Yet he persisted, in spite of (or perhaps simply to spite)[54] the mounting stack of paperwork, court costs, veiled threats, and injustices heaped upon him. When I first arrived, I had understood this as a natural desire to fight for justice, even though he was clearly the underdog. This was six years on from his dismissal however, the original contract had run out, despite his not getting paid his due. He had been forced from his apartment in the city into his mother's home in the village where we now found ourselves. His children had school costs and there were groceries to be bought and utilities to be paid. His wife routinely faced discrimination in her profession, due both to her own nationality and her relationship to him.

I eventually asked Janko what *he* meant by a twilight zone one afternoon. He looked at me as though I was mad. 'This!' He cried, waving his arms as if to indicate everything. We were walking home from a bus stop. He singled out a neighbouring house for particular derision: 'they have *pigs* in the back yard, it's not allowed! Not allowed by the government! This is a built up area, but no one does anything!'. 'The court! The university! Hah! It's a Mafia'.

Recent Serbian debates about the state of the nation that appear throughout the media, appear to be focussed around the loss and production of a state of 'normalcy', that is, a history of the desire for what one considers a 'normal' life and the feeling that this is precisely what one will never have in Serbia. This is very much life in the twilight zone, and many people talked to me about feeling as though they were 'outside' of time, conjuring up twilights, dream states, fog, and moments between waking. Many of my students had difficulties in distinguishing the differences between dreams and goals for the future, and in planning for how to make these happen. In my field notes at the time I wrote that it seemed that they had lost the ability to conceptualise the efficacy of their own actions. Many held seemingly conflicting ideologies as to the nature of

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[54] Inat - spite, is often said to be a defining Serbian characteristic.

‘transitioning’ and their relationship to it. What was in transition? Transition from what to what? How would they know when they had arrived? Older people with whom I spoke, talked of normal life as something that they had had, in Yugoslavia, or as they put it, in the days of the ‘red passport’, tying the concept of ‘normal’ to both interstate mobility and to European inclusion (Jansen 2009).

The red passport days had indeed been a high point in recent Serbian history; as Josip Tito turned away from Russia and courted the West, there was a period of massive foreign investment inside of Yugoslavia, and citizens were, as members of a non-allied state, able to travel and work both throughout Europe and ‘behind’ the so called Iron Curtain. Many foreign tourists spent time holidaying throughout the country, and under Tito’s particular brand of liberal socialism, the welfare services of the socialist Republic of Yugoslavia blossomed. Behind the scenes though, it was a different story, as Tito borrowed increasingly heavily, shifting money from prosperous regions to prop up those in need, ruthlessly quashing ethnic affiliations and national uprisings. Still, perhaps due to recognition of a multitude of political affiliations, Jansen (2009) suggests that these Yugo-nostalgic historic discourses of ‘normal life’ (as opposed to talking about ‘the good old days’) allow space for people with conflicting political views to articulate both a shared period ‘before’ the current situation (regardless of when and what the actual fall from grace might be attributed to), in addition to alluding to a contemporaneous situation existing outside of Serbia at the present. Just recently, and leading on from this, Greenberg’s (2011) examination of the various ways in which young Serbians experience state power through their articulation of ‘normalcy’ is perhaps the newest publication to draw attention to the seemingly contradictory nature of being both ‘for’ and ‘against’ the state, hell bent on transition toward a future within the European Union, but with one foot stuck firmly in the Yugoslav socialist past.

So what, if anything, was not ‘normal’ about Serbia? When did this state of affairs begin? What did people mean by it? What was ‘crazy’ about it? If nothing in Serbia was ‘normal’ then where was? Despite clear differences in people’s opinions over exactly

when a state of normalcy had been in place, or even what defined it, it seemed to be common knowledge that 'normal' was a quality that had been lost along the way. Examples given to me of 'normal' things not possible in Serbia often (though not at all exclusively) seemed to involve accumulating material goods, the ability to travel (legitimately), or the possibility of a stable job; all of which were imagined as being possible only outside of the country. Additionally, as Greenberg (2011) mentions, and as I heard constantly amongst the students, the phrase '*nisi normalan*/you're not normal' means to be crazy. Referring basically to the behaviour of an individual, it could be summed up, if you're not normal, you are by default, crazy. Was Serbia a crazy land?

However, let's turn back to the twilight zone for the time being. The quality of being 'out of time' both sustains and entraps Serbia. I hope that what I mean by this will become apparent. Let us start with sustaining. Both Greenberg (2011) and Zivkovic (2007) are ultimately interested in this. They ask (albeit in different ways) how it is that during and after decades of 'abnormal' (which I take to mean in this instance - inconsistent, conflict riven, violent) conditions of Serbian State functioning - what we might call a dys-appearance of the state (to appropriate Leder's term from 1990), people go about retaining, or regaining, the capacity for moral agency and effective action. While I have suggested above that the twilight zone is connected with moral decay, Greenberg notes another quality that arises within it, the loss of historicity, and perspective. As she writes:

> Intimate moments are bound up with massive political and economic shifts, as the banal and the historical, sacred and profane all merge to form one backdrop against which it becomes impossible to judge good from bad (2011: 94).

As a consequence, responsibility is displaced, and while I had originally thought of my students as having lost their ability to imagine effective action, Greenberg (2011) suggests in the wake of this lack of moral perspective, Serbia has actually produced an entire generation (those who are now my own age or younger) who have grown up

totally unequipped to take any sort of responsibility for their own actions. The twilight zone prolongs this (in)ability. Serbian history becomes something outside of sequential time, so that historical fact and national memory do not necessarily need to be synonymously recalled.

Zivkovic (2000, 2007) refers frequently to mists, hazes, slushy swamps, and mud, all articulations I believe, of losing one's way in a landscape of paralysed and indefinable waiting, similar in nature both to that which Crapanzano (2003) refers to in his study of white South Africans under apartheid: and of course, to Janko's Twilight Zone. Zivkovic also describes this loss of one's moral gyroscope in his darkly comic study of 'Mile versus Transition' (2007), a TV series popular in Serbia even during my fieldwork. The short series, which began in 2003, was intended to be ironic, and the fictional protagonist Mile, was planned as a projection of a kind of anti-citizen. Zivkovic deconstructs Mile, who through his caricature performance as the *Homo Serbicus Vulgaris*, the everyman - exaggerated in every direction and completely over the top, becomes the ultimate ethnographic insider;

> He is a human kaleidoscope of media fragments that settle in different patterns according to the situation. There is hardly a cliché you discovered in Serbia that he doesn't use, hardly a conspiracy theory that he doesn't subscribe to, a form of nostalgia that he doesn't espouse a one moment of other [...]. He is obviously intended as tongue-in-cheek, but offers unexpected possibilities of ambiguous, indeterminate identifications [...] (ibid: 607).

Zivkovic views Mile as an ambivalent anti-hero, a folk icon, an 'impossible combination of contradictory traits' (ibid: 607) offering viewers of the show the possibility to embrace him satirically, ambiguously, or as a completely un-ironic national hero. This, he surmises, must have been a bit of a shock to the writers, who had intended the show (and Mile) as a parody; an entertaining warning to citizens not to give in to those traits within themselves that they recognised in Mile. The problem, as Zivkovic sees it however, is that even many pro-transition citizens suspect that they somehow contain

Mile within themselves, recognising a fundamental kinship with him, even as they shower him with 'sarcastic scorn', opening a space for a kind of indeterminate irony to appear. The twilight zone sustains itself through its multiplicity of contradictory and often ironic truths.

As for entrapment, I believe that the qualities of feeling ensnared (Jansen 2009) by dream states and twilight-zones, and of being 'not normal' were fundamentally about the same thing. They are both the consequence and the cause of losing one's moral orientation within what Zivkovic (2007) calls the 'slushy swamp' of contemporary Serbian politics; a dysfunctional state of affairs in which otherwise well-meaning, moral citizens might have to make moral compromises; where one's hopes for the future are so diffuse and disconnected from the pragmatic ways that one goes about daily life so as to be virtually inconceivable. Although the writing in the extract below indicates standards of living in the 1970s and 80s, not very much seemed to changed in 2008. Zivkovic notices that considering the failure of the state to exert transparent and appropriate forms of governance and to guarantee a generally acceptable standard of living, citizens turned ever more to personal connections (*veze*):

> Everyday life...necessitated a repertoire of tactics for obtaining scarce goods and services that would strike a citizen of a more rationally organised western democracy as circuitous.[55] Having friends or friends of friends strategically distributed through banks, post offices, various bureaucracies, and, perhaps most important, hospitals, was valuable capital that enabled one to cut corners, jump long lines, and, in general, make one's everyday life easier (2000: 55).

Ones ability to act in a meaningful and moral way became increasingly embedded in these networks of contacts, friends and colleagues. Like any form of citizenship, the ability to access resources through *veze* imposes its own set of moral obligations on

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[55] Interestingly, Zivkovic (who has written elsewhere on the nature of becoming an unintentional insider ethnographer) himself takes on the Serbian mindset in the extract above: as he mentions of the irrationality of having to rely on one's friends and contacts for quality of life, rather than the state, he consequently offers this as evidence of the lack of 'normality' in Serbia.

citizens. However, throughout recent history these obligations often involved preforming actions that undermined the state. Whether one was tricking the system, or embezzling a firm; relying on *veze* under the socialist state was a matter of pride, and led to both a sense of honour among thieves as well as 'a corresponding distain for those who were too straight' (Zivkovic 2000: 56). Despite Serbia's ongoing transitioning to democratic and transparent forms of European governance, these 'non-networks' (like Dunn's from 2005), are still powerful and difficult to trace, having existed outside of legitimate government over multiple generations. Janko's story illustrates the dangers of falling out of them.

In many ways, citizenship itself continues to be performed through contradictory practices of both supporting and undermining state control. Zivkovic imagines these facets of political and social life as kaleidoscopes of ideologies, conspiracy theories, and media fragments, that constantly produce not beautiful arrangements, but prismatical grotesqueries, or 'poetic statements of the incoherence, and opacity...of the social world' (Zivkovic 2007: 607). By this quirk of logic therefore, one is 'not normal' in Serbia because this is itself a 'normal' consequence of what has come before; conditioned by the Twilight zone, and cut off from the rest of the world, it is implied that all citizens have in some way a 'skewed' moral gyroscope. This, Greenberg maintains, is why many of her Serbian student informants felt that only a foreigner could really understand all the ways that Serbs were 'really' crazy. They (the Serbs) only had each other to position themselves against (2011), each one spinning askew in a moral and social order composed of seemingly incompatible and incongruous beliefs. As Zivkovic points out somewhat sardonically, and as all this suggests, Serbia is not an ideal field for those with a weak stomach for contradiction, in fact, he proposes that that 'all combinations of contradictory political bedfellow will eventually be met with in reality' (2007: 602). I believe him, having met more than my fair share of absurd conspiracy theorists.

The Disabled/De-stabled State.

What do we mean about when we talk about citizenship? In Serbia, the word '*narod*', or ethnic nation also refers to its population, or *volk*. Body, territory and ethnicity combined. Like so many other aspects of the state, Serbian citizenship is also defined and performed though contradictory practices, not only of citizens, but of the state itself; which guarantees the rights of some, by excluding / failing to provide safety and security for others. An example of this has been Serbia's recent inclusion in the Schengen visa free travel zone dating from December 2009, explicitly without the politically contested territory of Kosovo. By consenting to this condition which was a requirement in order for citizens of the rest of the country to be guaranteed the possibility of travel, the Serbian State has recognised that, despite their claims of sovereignty over the region, Kosovo citizen status is not as legitimate as the rest of the country. Inclusion in the European community, and freedom of movement for the majority has come at the expense of a few.

This is, amongst other things, a tacit acknowledgement of what Buchowski (2006) refers to as the problems of internal societal orientation in a post socialist state. Buchowski writes about the transitioning process of Poland into the EU, drawing on ideas of stigmatised others within a country's internal and largely mono-ethnic internal population. Drawing on the seminal works of Bakic-Hayden and Todorova (already mentioned in previous chapters), he maintains that the postmodern, postindustrial and post-socialist forms that orientalist thinking has taken, stretch far beyond Edward Said's original definitions, in the sense that they cover

> not only Saidian distinction into orient and occident, but also into capitalism and socialism, civility and primitivism, and class distinction into elites and plebs (Buchowski 2006: 466).

The same peasant stereotypes that were once viewed in the *volk* tradition as maintaining a deep reservoir of Polish (and Serbian) culture have been a recategorised in the language of 'transition' as lazy and ignorant plebeian farmers by politicians and business

people alike, who see them as unable to conceive of the new free market, unable to change their ways, backwards, uncivilised, primitive. Rather than understanding this viewpoint as a product of post-socialist general moral decay during a transitory period, Buchowski's informants (businessmen and politicians) tell him that the country's low income ex-state farmers are simply morally unequipped to deal with the new state of affairs, having been used to spying, lying and stealing from the state farms on which they worked previously, and that as such, they are now deserving of their fate. Buchowski acknowledges that this is not a situation restricted to Poland alone. Many countries deal with urban/rural, uneducated/educated dichotomies. What he does make clear however, is that the presumption that spaces within national borders are mostly homogenous enables the this homogeneity of topography to conceal topographies of power occurring within national spaces (ibid.). He uses this geopolitics of power to illustrate the processes by which new internal hierarchies of modernist subjects are created, but also inverted by the subjects onto which these stereotypes are projected. In largely the same way as the Polish population that Buchowski describes, many rural Serbs view the urban elite as even worse than colonising foreign powers (own notes, as well as Zivkovic 2007, Čolović 2002). They are people who have turned away from their own culture, who have sold out, internalising their disgust at the *vox populi*; and at the habits of the *homos balkanicus.* In Serbia, the population becomes more sparse, mountainous and rural as one travels to the south. In this topography of political positioning then, Kosovo becomes the epicentre of the proletarian masses.

Citizens are additionally made through their capacity for legitimate mobility, and appropriate moral agency, the belief that their actions in some way influence and are influenced by state functioning. Recently though, the work of scholars such as Green (2007), Cresswell (2009), as well as the working papers of the CITSEE[56] research group such as the Rava (2010), Vasiljević (2011) how citizenship is also bound up in historical fears of too much mobility, of transient, messy or loose categories that allow loopholes in the citizen status of both internal citizens, as well as worries about the illegitimate

[56] Citizenship in Southeast Europe - Located with the University of the Edinburgh School of Law

travel trajectories of itinerant (foreign) populations. The Kosovo vs Serbia citizenship status of Serbs, and the denial of biometric visas to citizens of Kosovo, (Requested by the Schengen member countries) as a condition for Schengen Visa entry status for the rest of Serbia), shows how this plays out in reality. In a nod back to Serbia's socialist past however, the strategies that Kosovo Serbs employ to be granted full 'Serbian' biometric passports through their *veze* links (personal communication) show again how conflicting ideas of 'normal' morality serve to constantly destabilise the hierarchies of legitimate governmental power, and in fact, it occurs to me that the government was quite possibly complicit in its understanding that this would be the case even while it was acquiescing to the pressures of the Schengen member countries to create a formal split between the territories. It is much easier to give in to a demand if you know that it will not likely affect the practical outcome for securing a biometric visa.

In relation to my interests in prosthetic citizenships, it was the disabled and internally displaced citizens who had the most obviously uneasy relationship with citizenship practices, whether we speak of their rights to work, or vote, or live independently, to have relationships and families, or to access health care. This was made very clear during my own fieldwork, in the opaque and messy bureaucracy of the Bela clinic, which enabled some of these citizens to access citizenry benefits, whilst excluding others. As mentioned previously in chapter two, whilst conducting interviews in a women's dormitory one morning, I noticed that one of the women there was a stroke patient rather than an amputee. She turned out to be the mother of a previous patient of one of the physicians, who had petitioned the centre to take her in even though she didn't qualify for treatment, after she had been passed around from one rehabilitation centre to another in Belgrade. The ability to call on favours or to use one's connections to one's own advantage means that the *veze* system still trumps the excessively bureaucratic and dysfunctional channel of state medical services. The end justifies the means, in terms of an ethics of practice. Within the world of disability many of the 'givens' of citizenship must be fought for. Citizenship must be proved through

appropriate morality, both at an individual level and at a supranational scale, by states seeking membership into a global community.

Being a citizen is also intimately tied to notions of statehood, and in what Ingstad and Whyte (1995) feel is connected to the discourse of modernity, nations have increasingly delineated their corporeal subjects, to record, survey and classify them vis-a-vis a cultural and societal interpretation of a 'norm'. In fact, the use of 'normal' in relation to bodily measurements is a reasonably recent arrival to the English language, dating from the mid nineteenth century (Hogle 2005), when it was discovered that the measuring of individuals could yield a so called 'distributed range of data points' on every aspect of the human biological state, from physical traits to behaviour or IQ. With the plotting of these points thus began the concept of what we now call the 'bell curve' of normal distribution. This new way of measuring variance in populations initially augmented older ideas of balancing individual deficiencies and excess, though Canguilhem (1989) shows how with time, the production of categories of norms and pathologies became ever more popular. Eventually the standardising of forms of variance (so that it could be applied to entire populations), became the primary means by which acceptable and unacceptable deviations from an abstraction of a societal 'normal' became the prevalent mode of classification (Canguilhem).

In his ethnography of personhood and institutional advocacy primarily among physically disabled men in modern China, Kohrman (2003a, 2000b, 2005) discusses the various ways that injured bodies speak with the force of history, thus making them emblematic of the past. As the same time however, he notes that through increasingly complex bodily enhancements, assistive devices, and techno-scientific solutions to bodily contingency, these bodies are representative of the future, symbolising increasing access to resources, technologies and trade, within increasingly global networks. He charts the rise of disability organisations with the development of strong systems of national-level governance, realising at the same time that categories of disability are often created

within highly de-territorialised international frameworks for managing health and illness (ibid).

These frameworks may legitimise the claims of some citizens for access to national healthcare and welfare resources, however they also have the unintended consequence of silencing narratives of suffering that fall outside of these categories (Petryna 2002, Kohrman 2005). Ingstad and Whyte elaborate on this process (1995) noting that when the framework of the state is weak, disability is defined and delineated according to popular recognition of difference. As the state infrastructure strengthens, there is an expectation placed on the state to identify and count the bodily distinctions of its subjects. Viewed in this light, disability is directly related to the processes of modernity and the growth of the nation-state as the predominant unit of mass political organisation (Kohrman 2005) and in turn, the growth of biomedical, legal and educational institutions. What this means essentially is that as nation-states come to define, medicalise, and standardise aspects of human existence, they often do so within a relatively new social category - disability (Kohrman 2005). Serbia's state infrastructure remains weak, which I see is both a cause and a consequence of the continuing reliance of more practical *veze* networks, which require different practical and moral compasses to negotiate. In these ill defined categories then,

> Disability becomes the space in which the value of normal shines forth without ever having to be directly spoken of, and disabled people are held to be asserting their individual ability (value) when they can be seen as oriented to serving this normal order (Michalko 2002: 530).

For Serbia, located in a liminal sphere (both geographically and politically) between east and west, positioned now on the 'immediate outside' of the European Union, membership in the European community appears closer to the realm of possibility than ever before. The capture and extradition of Serbia's last two remaining high profile war

criminals,[57] the acquisition of a biometric passport scheme, the possibility of visa free travel within the Schengen zone; all these moves are taken by euro-progressive citizens, and by external Balkan 'watchdog' organisations, as indicators that Serbia is moving toward a state of 'normal' (Greenberg 2011). Interestingly however, Jansen has elsewhere noted (2009) that 'normal lives' are also recalled in Serbia, as in Bosnia and Herzegovina, through the recollection of living standards, order, and social welfare, but that moreover, a normal life is fundamentally concerned with the dignity of knowing that one has 'a place in the world' (ibid: 827).

Indeed, Serbia is possibly closer than ever to being 'normal' or at least to existing within the widely acceptable bracket of tolerable deviation from it, if one takes democratic governance, acceptance by this international community, and living standards, to be appropriate markers of this state of European normative governance. However, after 18 months of examining the production of prosthetic 'norms', what I feel strongly is that aiming toward 'normalcy', as Rod Michalko (2002) claims, shows exactly how

> One of the most 'abnormal' things about being 'normal' is attending to its production. Once this is done, normalcy loses its self-proclaimed status of unreflexive naturalness (ibid: 82).

I have already made use of Leder's theory of 'dys-appearance' relating to the body and its phantoms and prosthetic additions, but it strikes me that, as I have recently mentioned, as the state was originally conceived of as the body of the sovereign monarch, we might also expand this theory to encompass all forms of national territory. Leder's position was that we only really experience our bodies as present when they give us trouble - aches, pain, and so on. When they are dysfunctional, instead of remaining largely absent from our thoughts as they are generally, they dys-appear, in all their wrongness. Which, in making us think about them, pushes their limitations into our conscious (fore)thoughts (Leder 1990).

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[57] Radovan Karadžić and Ratko Mladić.

I would argue that the same can be said of the state. Normally, we do not notice its exact dimensions, either of policy or in territory (this perhaps even more so within the European Union and the Schengen visa free travel zone) at either local or national level. Water and gas flow into apartments, salaries are paid, markets and shopping centres offer goods that are bought and consumed, waste is disposed of, malaise and illnesses are treated by health professionals, democratic processes are observed, laws are upheld, trains, planes and buses ferry citizens from place to place...

In times of crisis however, the limitations of the state become startlingly clear, and, rather than reminding ourselves of those areas of social and political life that do remain in working order, our focus sharpens on those facets of the state that have now 'dys-appeared'. Recessions, wars, territorial disputes, political upheavals, all offer a multitude of ways for various dys-appearances of the state, and I propose that it is during these periods of the dys-appearing state that the forms that prosthetic citizenship take become apparent. Not that they are not always in place, but simply that as a meshwork in which we exist they generally form an indistinguishable part of individual and collective personhood.

Many of the supporting structures of citizens exist in ways that fall outside of meaningful analysis (such as ANT). Instead they constitute a kind of background noise. They are the material media in which living things are immersed (Ingold 2008). Ingold argues that it makes as much sense to call us hybridised by our technological environments, as it does to say that the water in which a fish swims is an active participant in the environment of the fish, or that a fish is really a 'fish-water' hybrid (Ingold 2008). Until the networks of their creation are jeopardised and their edges are frayed away, our citizenry prostheses form the unnoticeable vernacular matrix of social life. They exist as those structures that support and prop up citizens; that is, the

> material, structural, institutional and social conditions that need to be in place in order to translate aspirations into realities (Greenberg 2011: 94).

In actual Serbian citizenship practices, it is the later part of this statement *the ability to translate aspirations into realities* that has become the manifestation of everything that is 'un-normal' about Serbian life. Like the fish though, does it make sense to claim that these conditions are active participatory agents? They are the water (or the slush - as the case may be) in which we wade, negotiating obstacles to effective action. In the muddy Serbian matrix, sovereignty is manifested in multiple, often contradictory citizenry strategies that meet with diverse claims and contestations, and produce diverse and contingent outcomes. Given the aspirations and agendas of individuals for the type of action they wish to generate, many end in a stalemate of contradiction (see Janko's story on page 77 for a description of a complex moral stalemate). Some learn to negotiate these new complications, and others do not. Those left behind, entangled in the structural framework of transition, are re-imagined by those who have kept up (and those who have a foot in each camp, so to speak), not as people with problems, but as the problem themselves, in a very similar manner to how rural conservative Polish citizens are re-imagined by their liberal urban compatriots (Buchowski 2006).

Utilising one's *veze* connections enables practical solutions to daily bureaucratic difficulties within a shifting and unstable political playing field, and both strengthens and propagates these networks for further gain (and is often the path of least resistance where bureaucratic process is concerned), but has the disadvantage of further weakening official channels of power play. *Veze,* then, is as much an example of distributed agency as a physical prosthesis, an external structure that props up and augments the body. As with any prosthesis, the choice to make use of some networks rather than others (apropos Winance (2006) see previous chapters), opens up some opportunities and closes down others. Furthermore, *veze* also supplies both the need for its continued usage (in that its continued usage destabilises more official networks) and the fulfilment of that void (the avoidance of bureaucracy), one of the many defining qualities of prostheses that Jain (1999) chooses to engage with.

Deficient Citizenship

> A consequence of leaving normalcy unquestioned is that connections between the assumptions, values, and structures of normal life and how disability is actually lived...are almost obliterated (Michalko 2002: 82).

Health, citizenship and normalcy are perhaps most obviously linked together through the ideology of public health, where categorial renderings of normal and pathological states (and categories of normal pathologies) and management of the health of entire nation-states is enacted at all levels of society and nation. These include the natural environment, communities, workplaces, family life and perhaps most importantly, the individual (Peterson and Lupton 1997). Although individual autonomy in health practices is generally alluded to by health professionals, decision making is rarely actually autonomous, as, like Ingold's fish-in-water on the previous pages, the individual is always immersed in their prosthetic structure, existing as the individual-in-family / or the environment/society/the clinic. We are indeed not as bounded as we like to think.

Additionally, within the trope of the Western welfare capitalism, it might be argued that the historical norm of a white, male, self-governing, able-bodied, heterosexual, wage-earning subject exists as the universal citizen (Cresswell 2009). He is able to enact and claim legal, political and social rights. This citizen is an abstract concept however, as around him exist a range of structurally differentiated 'incomplete' subjects - marked by gender, age, illness, disability and/or ethnicity/nationality (Jain 1999, Clarke 2003).

These incomplete subjects are actually much more real that the universal citizen. Furthermore, the creation of various categories of incompleteness, and the assertion, post-creation, that they should not matter (as well as the additional call for the inclusion of peoples deemed to be incomplete subjects into society), actually serves to mark certain types of people as an otherwise excludible type (Titchkovsky 2003).

However altruistic policies of inclusion might be, Titchkovsky's focussing on the elimination of exclusion allows the actual exclusionary processes of *inclusion* to reveal an unchallenged assumption of a biological norm. Her focus on the category of disabled citizens in Canada, shows just how they are 'given shape as an excluded [and excludible] population, in need of programs enabling inclusion' (ibid: 518). These paradoxical inclusionary practices are thus prosthetic in that they too supply the deficiency for which they seek to provide the solution (to use Jain's original 1999 definition).

In fact, when it comes to articulating the concept of prosthetic citizenship, I have an anthropological precedent. Despite Kurzman's justifiable critique of their work (2001), Nelson (2001, 2001b) and Wright (2001) have both attempted to pin down a prosthetic aspect to cultural identity formation. Where they went wrong, and what so raised the hackles on Kurzman's back, is the lack of distinction that both authors make between identity and citizenry. I maintain that identity politics make a difficult ground for the metaphors of prosthetic that really seem to be about power relationships, and repeat Jain's parting warning, that as the prosthetic body is the norm rather than the exception (1990), prosthetising the body cannot help us narrow our gaze on identity construction. I believe however that it can help us understand the creation of citizens, who are defined by their capacity to affect moral actions; to both own and be shaped by having 'a place in the world' as Jansen (2009) puts it.

To my mind, despite rich ethnographic detail into gendered and culturally codified interactions and imaginings, Nelson (2001b) loses track further when she imagines the image of the mujer Maya as a 'semi autonomous prosthesis' to a kind of metaphoric Mayan identity. I, like Kurzman am confused about what she actually means by this, because, as he points out, a prosthesis cannot be autonomous, although, as Nelson does elude repeatedly, it can be and often is, a difficult pairing; an ungainly or 'lumpy' incorporated structure. Why can it not be autonomous? Power relations in human/

prosthesis relationships are directional, flowing out from an individual to their external structures.

A citizen can be only ever be an ‘individual-in-wheelchair’ rather than the inverse. The wheelchair alone represents a form of action, rather than an actual augmentation, incorporated into a body schema, likewise an ‘individual-with-prosthesis’. Divorced from usage, it is fetishised movement, like Zoran’s fancy spring loaded mechanical knee, propped up on his wall at home (see his story in The Ghost in The Machine).

Responding within the same journal volume to Wright (2001) and Nelson’s (2001, 2001b) articles, Kurzman’s imaginings of his prosthetic limbs marching downstairs to confront his subjugation of them, while facetious, do prove the point he is trying to make, that the potential of the prosthesis for active agency should not be confused with autonomy. They may prop up, support, and augment, open the possibility for some forms of action, and close down others, but they cannot self determine, Zoran’s leg cannot walk alone, it cannot even make him walk better via osmosis or by its sheer existence, without his mastery of a set of learned skills. Likewise, the prosthetic structures or orbits of individuals do nothing on their own. They require manipulation, and a mastery of skills; how to access benefits, who to talk with to smooth one’s path in a visa queue, where to buy goods.

Even when I have referred to the distributed agency of individuals in various co-formations of interpersonal and technological pairings, where one element is prosthetic to the other, there must necessarily exist a citizen (or core concept) at the centre of each grouping. Relationships with all these external elements are not mutually exclusive, an individual (or technological/bureaucratic) node existing on the periphery of one particular prosthetic network can also be a more pivotal central element of another, and in turn will have their own distributed network. What Ingold calls meshwork in the above extract, I see more as the radius of potential actions that orbit various citizens and citizenry groupings, the spheres in which we all move and which are in turned

influenced by us. In this respect these prosthetic citizenships are rather more like the circumferences of venn diagrams, where each overlapping area opens the possibility for a particular contingent form of action. Perspective is of particular importance in the distributed agency of citizens. Who and what is 'prosthetic' (i.e. augmenting) to someone or something else changes as a different concept is placed within the central orbit.

Despite falling firmly within Kurzman's camp when it comes to the difficulties that he has with the way that both Nelson and Wright retroactively define prostheses as artificial limbs, and amputated bodies, I do agree with Nelson's ultimate conclusions, that

> We cannot understand the relations between the imagined and lived body of the [wounded] nation, the relation between indigenous rights and the project of nation building, the simultaneity of modernity and tradition and the theoretical problems of the relation between real bodies and social fantasy, solidarity and critique, without thinking them all together (Nelson 2001b: 342).

Wright's work, from the same volume (2001) which begins so promisingly by offering the prospect of a concept of a distributed social network and the prosthetic nature of the power differential between 'unskilled' female Mexican factory labourers trained by a skilled male supervisor, unfortunately also does exactly what Michalko warns against in the extract previously mentioned (2002). It takes this prosthetic relationship to be something outside of the ordinary, leaving issues of normalcy in gender and workplace relations (indeed in all intersubjective relationships) unquestioned, as Wright imagines a hybrid and hermaphrodite abstract body that both parties inhabit. I, like Kurzman, am wary of the way that Wright, like so many scholars, never questions the assumption that the body in need of prosthetising is a naturally incomplete body, lacking in substance, and I therefore worry that as the prosthesis is taken as an extension to a 'natural' insufficient body, this raises questions as to what kinds of relationships and citizens *are* sufficient.

Wright (ibid) misses the point articulated at beginning of the second section of this dissertation, lifted from from Steigler's (1998) 'Technics and Time', that a prosthesis, far from being an extension, is really the constitution of the body as human. Steigler takes the body itself as the original prosthesis that we learn to manipulate, and posits that augmentations and replacements to it are therefore part of a continuing process of prosthetising. Prosthetic relationships are gendered, aged, classed and raced, mostly (though unlike Kurzman I'm unwilling to accept it as a universal fact) according to the cultural and personal preferences of an amputee[58]. To this end I am wary of retroactively ascribing prosthetic metaphors to citizenry status as well, though I am heartened in this endeavour to remember that whilst I was in Serbia, Kosovo was alluded to as a gangrenous foot (as previously mentioned) that needed be amputated for the health of the nation, as well as to hear that it would always remain part of the Serbian national body, even if no Serbs remained there. Phantom citizens thus appear in the political and social landscape. However, if it appears rather difficult to see prosthetic citizenry practices in healthcare, I hope to show that this is more a case of the difficult and paradoxical properties of prostheses themselves, than a theoretical shoehorning on my behalf.

The ability of nations to maintain the health of their populations is in many cases an index of global standing, in an age where despite the increasing salience of international health interventions and incentives, the politics of global health is far from de-territorialised, especially when it comes to the provision of care to the poorest members of society, to illegal immigrants and refugees, or in the case of Serbia, to the large numbers of 'internally displaced' Serbs, with indeterminate citizenry status.

Writing about the treatment of immigrants in health care centres in the USA, Ong (1996) discusses the ways in which class, ethnicity, and cultural difference become reductively

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[58] Kurzman's reference to the skin colour of a limb being matched to the skin of the amputee is of course a 'best practice' ideal, though is outside the realm of possibility for many amputees in Serbia, and I imagine in many other situations as well.

racialised, on a sliding scale of blackness and whiteness, based upon popular lay perceptions of a group's potential economic worth. Ong contrasts the treatment of Cuban and Mexican immigrants in an era of declining welfarism, noting that this precipitates 'the rationing of health care, based on a scale of individuals' imputed moral worth' (Ong, cited in Horton 2004: 475). Horton's work itself is interesting in this regard too, as she examines both the way that refugee patients' languages and health attitudes complicate health care access, and the way in which hospital staff measure immigrant groups against each other, 'couching issues of risk and responsibility in terms like ethnicity and national origin' (ibid: 476). Differences in health seeking behaviours, class attributes and status of immigrants all fall under the catchall phrase of 'culture'. Remembering the citizenry reframing project (as envisaged in Poland, and in Serbia as I have argued), and the basing of the universal citizen on an abstract norm, the creation of new forms of risk, and the production of Serbia as a state on the 'immediate outside' of the EU, we begin to form a picture of how the marketing of health (in this case prostheses) through official channels of government and international business, is co-opted by occasionally contradictory ideas about health, as well as unofficial health seeking models of behaviour influenced by divergent factors such as *veze*, availability of resources, citizenry status, even time of year. Patients in the clinic were on the lower economic rungs of society. Seasonal black or grey market workers, the internally displaced; many fell into the category mentioned by Buchowski (2006), people left behind, and recategorised as the problem, those to blame for Serbia's lack of 'progress' toward European amalgamation.

It is not only the health of both individuals and collectivities that that is up for debate, as we continue to discuss the health of economies, trade networks, industries, and territories. The turning of governance toward the self however creates a moral deficit, and I would argue that in Serbia's case this is then inverted and reprojected upwards to a state level, as states are, after all, collectivities of people, especially in the case of states with large supra-national populations and weak or shifting physical state boundaries. Petersen and Lupton (building heavily on Foucault) have shown the health of the nation

can be viewed as a resource that must be maintained as an end to itself, perhaps even a state of war readiness, and more recently scholars have concurred and also inverted these claims as well, describing how the ill health of a nation is sometimes utilised as a resource for attracting aid through medical trials, or as a defining characteristic and the grounds of citizenship itself (Petryna 2005). This upward projecting however, primarily allows the language of the state to become imbued with the language of the self, where national stereotypes can then be both created and confirmed as 'natural', which in turn allows this category to remain unscrutinised. Just as I described the how bodies can become the state made corporeal, so I would like to suggest that the inverse also applies. The state can be imagined as a corporeal collective body, with appetites that cannot be reined in. Further more this state body can then be positioned relative to other states, personified as a risky or responsible patient, deemed to be making 'progress' (or not, as the case may be).

Imagining prosthetic health citizenships, both at an individual and state level, means a critical investigation of concepts such as bodies, technologies, individual and collective rights and social and aesthetic norms. This by itself is not explicitly prosthetic. It is part of a growing body of research in social anthropology and especially within medical anthropology that explores different models of 'medical citizenship', such as claims made for biological (Petryna 2002), pharmaceutical (Ecks 2005), or therapeutic (Nguyen 2005) citizenship. What is specific about a prosthetic citizenship is the ways in which what I have called the orbiting structures (metaphoric, physical or otherwise) of that which we call a singular citizen, force us to 'renegotiate discourses on "the human"' (Smith and Morra 2006: 6). One might argue that these are the themes of cyborg anthropology, however rather than embracing the cyborg, the post human, and the post-post human, prosthetic citizenships evoke a critique:

> Against a more evolutionary understanding of the gradual infiltration of the body by prosthesis, there is ... [an understanding] that the point of prosthetic contact - and the dialectic of the edges in such contact - is

> also a part of a process that recognises exactly how the 'the prosthetic' is an integral or 'inter-constitutive' part of the 'human' (ibid: 7).

Physical restorative prostheses are still commercially produced objects, whether high or low tech. They are bought and sold on global markets, subject to patents, copyright law and economic flows of capital. These technologies change and adapt, keeping pace with wider industries of cybernetics, and engineering, intimately tied to the relentless quest to replicate the human body. As objects however, prostheses are much more than the sum of their parts (pun wholeheartedly intended). They are also indicative of social processes, class and socio economic status. New technologies do not always replace old, but can co-exist. Moreover, in a process known as alignment, an amputee learns to 'embody' their specific prosthetic, to make it part of their lived experience so that it ceases to be an object and instead is incorporated into the body. Within the gait clinic this relationship is tested out. It is refined and made temporarily solid. It may however be revisited as this relationship no longer becomes desirable or appropriate. Like any consumable good, certain brands and types of prostheses are considered to be more desirable, and as with any rehabilitative measure; cultural, economic, and social structures help to shape where the upper limits of functional restoration and the lower limits of enhancement lie.

Mass produced and globally consumed objects are thus incorporated into the lives of specific patients and these lives are also grounded within lived context. Within a gait clinic (or a physical therapy lab) a new relationship to this lived context is tested out, to be revisited repeatedly, as one's priorities and desires for a particular way of being change. It is not only the corporeal and technological relationship being reordered. A new citizen is created, other prostheses are perhaps incorporated or jettisoned; for example, a government benefit, a walking frame, a wheelchair, the presence of a carer at home.

Prostheses are therefore also about the creation and maintenance of social order. A 'normal' gait or body shape might not exist in any *real* way; however there is a standard

degree of deviation from this abstraction of normative ambulation which is tolerable. This is the space of prosthetising. Prosthetising is after all about pronunciation, easing understanding, and therefore ways of acting and/or being that fall outside of any range of understandable deviation are bought under control through the prosthetic aspects of citizens, as they are seen to pose a threat to normal and appropriate social relations.

What indeed is a citizen? As always technologies adapt and mutate. The Europe of 2010 is an ever more technologically advanced and increasingly global world, where advanced liberal systems of creating, maintaining and governing health populations have re-conceptualised the primary political citizen (Foucault 2006 [1991], Rose 2006 [1996]) as a subject who self-regulates his/her behaviours, and thus, by exercising 'free-will' governs him/herself in ways that are simultaneously indicative of a freedom to do as one pleases, while conforming to the 'norms' of society. Who and what is governed in these new state apparatuses? The internal borders of the European Union become more permeable, even as the peripheral ones strengthen. In a time of economic austerity within healthcare there is what may be termed a general shift away from the principles of a welfare state, as governments find less funds are available for public spending. Rose writes that although

> strategies of welfare [seek] to govern *through society*, 'advanced' liberal strategies of rule ask whether it is possible to govern without governing *society*, that is to say, to govern through the regulated and autonomous choices of autonomous agents - citizens, consumers, parents, employees, managers, investors - and to govern through intensifying and acting upon their allegiance to particular 'communities' (2006: 160).

This can be seen as reflecting new global health initiatives, where individual populations are governed through citizenship, which affects their access to health services (Beck 2005, Hindess 2005). However, far from de-territorialising populations, this type of governing is enacted by the creation of smaller territories of governments held together by the creation of supranational targets (whether they be health, economic, or political). Failure of a state to control its population therefore becomes legitimate cause for

intervention (whether desired or not) from foreign states. Like the prosthetic body, the prosthetic citizenry structures of the state then imagine a whole (the state) by reducing the body of the state to a sum of units (institutions, citizens, families) that may then be shaped individually. These supranational ideals are played out in the daily lives of citizens, the choices available to them, and the support offered. Recent anthropological research has shown how difficult it is to separate 'the state' from the politics of local level life (Gupta 2006). Indeed the boundaries of the state and the individual appear to be more blurred than ever.

Within the Bela clinic, a premium was placed on inpatient care, and at the expense of the provision of higher quality prostheses. More prostheses of a lesser standard could be made for with the money that was available, requiring less training of prosthetists and less parts that could break. This meant that a higher number of patients could be trained by physical therapists, rather than prosthetists, important as therapists were cheaper to employ. Many of the younger patients in the clinic actively researched their prosthesis options, even though more technological limbs than those offered through the health care system were above their economic means. Those who could access funding (by friends, colleges, churches or organisations) and who were interested (the majority of people were not) could draw on their networks to gain access to the resources that allowed them to become the kind of citizens that they wished to be. In an ongoing circle of exclusion therefore, only people with supporting structures already around them could utilise these further supports themselves.

The Serbia that I lived in was a country undergoing a massive transition, both from long term economic crisis, and conflict. It was aiming for the development of a transparent democratic market in a region where many of the problems stem not from Balkanisation, but, as Green (2007) has argued, from messy hybridization, from indistinct boundaries and borders that are disputed and can be claimed by multiple parties, given differences of scale and historicity. Though each of the Balkan countries has fought tooth and nail to become independent from each other, now all seek a new type of security and legitimacy

under the banner of the EU. At the time I lived in Novi Sad, Serbs still needed visas for all European countries (with the exception of Turkey and the newly created Montenegrin state), a state of affairs that had existed for over 20 years. The bureaucratic channels that one had to go through had the effect of making travel a luxury that few could attain, and even then, it was often through paths of dual citizenship. Where and how one could travel was less a question of monetary resources and physical than the ability to imagine one's historical citizenship outside of Serbia[59].

Ten years on from the 78 day long NATO air strike that shook Serbia, the occasional building in Belgrade remained bombed out, the trains crossing over in Novi Sad were still using the 'temporary' bridge, and crumbling military structures on regular Sunday hiking trips with friends in the Fruška Gora national Park served as a stark reminder of just how badly wrong everything had gone. Serbia was and in many ways remains badly misunderstood in the international media. It is still often perceived of as an antagonistic, stubborn and spiteful country[60]. In many ways the 'sustained waiting' meant that neither past events, nor future directions were discussed. Occasionally though, individuals were jolted out of this state. such as in April 2009, as I was conducting an interview with one of the nurses at the Bela clinic. Suddenly all the air sirens in Belgrade sounded. Startled, I started toward the window, and looked over as the nurse, suddenly paralysed, her mouth frozen open and her eyes wide and staring, burst into tears. 'It is the anniversary of the start of the bombing' she sobbed, clutching at her stomach, 'I'm sorry, I can't help crying, it is a physical memory inside me. You know, I was pregnant with my daughter when they started.'

A physical memory - contained (not unlike a phantom limb), within the mind, but experienced through the body. A body of memories. The past suddenly breaking through

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[59] Just about all of my friends and colleagues if I asked, would answer that their families were from outside of Serbia. After my initial surprise that the inevitable questioning that would follow, it typically emerged that they were talking about a great great grandparent.

[60] the Behaviour of Radovan Karadžić and Ratko Mladić in the Hague is often jumped upon as typifying that of Serb Politicians - unrepentant, belligerent and hoping to lay the blame elsewhere.

the hazy twilight zone. The anniversary of the *start* of the bombing, not its ending. This small vignette is perhaps a tellingly poignant example of the consequences the moving forwards out of the twilight zone. The mechanisms by which the twilight zone keeps the future positioned outside of reach, also allow even the recent past to remain diffuse, recalled as though out of time. It is only when history breaks through its haze that horrors are remembered. As we move into the second section of this dissertation, I ask that we keep this in mind.

The second half of this dissertation deals more explicitly with the rehabilitation of bodies within the Bela clinic, at the networks involved in the creation of citizens, who I find have a distributed agency which sometimes causes, due to the nature of state functioning as I have described in in this first half. I wish to now examine how hope is imagined in the clinic, and why it is that we design to rehabilitate these bodies in the first place. The forms that these rehabilitated bodies take, are caused by and have consequences for patients and staff alike. Networks of people, objects, and ideas are implicated in the construction of legitimate citizens.

II

The prosthesis is not a mere extension of the human body;
it is the constitution of this body qua 'human'
(Steigler 1998)

Hope in Motion

Proprioception and Performance

To begin, some general knowledge about admissions. I sat in on a couple of hospital admission evaluations with Gordana and Nikolina, and later with some of the clinic psychologists. The patients were asked many questions - factual, technical and medical, for example about their amputations and surgeries, whether they had pre-existing medical conditions, and whether they smoked or drank. They were also asked if they enjoyed socialising or if they preferred to be alone, if they liked reading, and what sort of level of movement they aspired to. It struck me that during these interviews, the patients themselves were mostly passive. Dishevelled and with downcast eyes, a number of them mumbled monosyllabic answers. The inevitable family member or carer who had brought them did the majority of talking. Later I asked some of the staff if the patients were often medicated for depression, from which Gordana had previously told me many suffered. Bojana told me that unless they were already being medicated for a pre-existing condition, the answer was no. Nikolina later told me that depression after amputation was a 'natural' phenomenon, one that would fade gradually as the amputees learned to wield their prostheses and came to accept their new body image.

Jackson once hypothesised that perhaps our uprightness of posture defined a psychophysical relationship with the world, and postulated that to lose this position could be thought of as both a bodily and intellectual loss of balance (1983). French's (1994) work with Cambodian amputees appears to confirm this from a cross cultural perspective. Speaking of crossing cultures, the Bela clinic itself had been had been founded on a mid 20th century American psychological model of care, to which Jackson was referring, which had additionally been interpreted though the lens of Tito's Yugoslavian model of socialist health care.

The English language is full of metaphors that take the ability to stand and to walk to be 'a measure of rank and moral rectitude' (Ingold 2004: 324). Examples include 'to stand up for oneself', 'to stand tall', 'standing on your own two feet', 'to walk out', 'to be

walked over'. Ingold goes as far as to suggest that from the waist down, the human body is really simply a 'stepping machine' (2004). Standing is about strength, movement, and masculinity; it is a prelude to walking, a move outward and as such, it is diametrically opposed to sitting and dependence, passivity and femininity (Young 1990 [1980]). Our ability to stand has become emblematic of our moral standing (Ott 2002), a sentiment shared by Scheper-Hughes and Lock (1984) and more recently by Metzl (2010) who note that increasingly in our neoliberal health market, physical impairment is no longer the result of bad luck alone, but is emblematic of a perceived failure to live right, eat well and so on. The absence of health infers a moral failure. Reclaiming movement is thus a prelude to independence, both in a mental capacity and a physical sense of regaining a moral perspective. Simply put, the more physically active the patients became, the more mentally proactive they also appeared to be.

I am greatly aided in this chapter by the work of Warren and Manderson (2008), who carried out research on rehabilitation, ageing and amputation, although in an Australian setting. There are many similarities between the Bela Clinic and their research, though some clear differences also exist. Like Warren and Manderson, I am continually interested in how patients and staff understand hope and rehabilitation relative to prostheses. What do they hope for and why: and how is hope generated within the clinic? The answers to these questions appear both clear and riddled with complexity, for what is being asked is not as simple as it first appears.

First, the vast majority of the patients at the Bela clinic were geriatric patients with ongoing vascular co-morbidities. Their amputations are in many ways indicative of a continuing process of ever decreasing body functioning. In many ways, the loss of these vascular pathways constitutes a diminishment of sovereignty over one's own body which is likely to be become worse, reviewed and re-operated on as more areas of the body become unviable. Their age and the multitude of these health issues render many patients' futures uncertain and largely foreshortened. Yet without exception, the patients with whom I talked during fieldwork wanted to return to a state of 'normal', seemingly

in all aspects of their lives. The staff are also invested in this push for normalcy, although in a far more clearly anatomically delineated capacity. Their 'normal' was quantified within the gait lab, as 'the absence of gait deviations' or as having a 'normal gait pattern'. Appearing 'normal' through movement is the practical and aesthetic paradox of the prosthesis. It is after all, as Wright notes, 'the secret of [one's] self, hidden beneath clothing, allowing its user to pass as something other than what they 'truly' are' (2009: 1).

The amputated body has different physiological limits to the bipedal, four limbed body, with all its internal biological organs intact. How a normal prosthetic body might look, feel and behave is dependent on different body schema, that is, what has been removed, and why. For example, it is quite common for amputee patients to experience high blood pressure, raised body temperature and increased sweating, due to changes in physiology that accompany the loss of body mass and skin surface area.

The staff with whom I talked inside the Bela clinic felt that because of this disparity between the body before and after surgery, it was not helpful for the amputees to use their previous body as a tool for comparison, telling me often that patients needed to 'accept' their prostheses into their selves. In reality however, it was difficult for patients and staff to find common ground without alluding to the language of the biological body, and therefore the narrative of rehabilitation was an area of uncomfortable boundary crossing, where both parties lacked the language of the other (see Kurzman 2002). Patients are required to tell their prosthetists and therapists how their prosthesis feels. Clearly there are descriptors that are easier to interpret, such as tightness, looseness, rubbing, chaffing, or squeezing, but how does one make sense of a prosthesis that produces cramps in a phantom calf? That feels like walking into a hole? Or up a hill?

To try to get my head around how difficult it would be to describe walking without alluding to the biological body, I thought about how I would go about describing how my biological leg feels while walking. Sacks once called the language of movement a

kinetic symphony (Sacks 1984), referring to the ability of action to transcend linguistic description. Grosz's body that 'knows' (1994) its actions is really nothing out of the ordinary, it is the body of an 'everyman', engaged in networks of what neurologists and prosthetists call kinaesthetic or proprioceptive senses. Fundamentally unconscious, these movement senses are none-the-less necessary for all voluntary movements that we make, from our ability to balance, to our knowledge of how hard it is to grasp a teacup. In daily life, these senses have become automatic, the thousands of actions that the body processes simultaneously to accomplish movement exist as literally 'unremarkable'. Especially in the case of ambulation, proprioceptive and kinaesthetic senses matter, otherwise we wouldn't be able to walk without consciously watching our feet. In a very literal way, the prosthetic paradox means that to make a prosthetic leg as equally unremarkable as a biological one, both the prosthesis and the patient must go through a fundamentally 'remarkable' process. To make use of Leder's illness metaphor, in order for prosthetic limbs to disappear as attachments and become incorporated into a whole, they must first be made to 'dys-appear' (1990). The performance (of walking) is broken down into a multitude of smaller actions within the body (toe / heel strike, dorsiflexion, rollover, energy storage, spring for example), which are then transformed through being described, and from this description replicated through technology, before being translated back into action and relearned through proprioceptive networks.

Warren and Manderson (2008) show that within the field of prosthetic rehabilitation among the elderly, the high probability of future amputations mean that body sovereignty is uncertain and temporary, due to the presence of various co-morbidities that foreshorten long term life expectancy. A long and prosperous future with a better quality of life was therefore not a motivating factor for these patients. Along with this, the physiological knowledge of their own biologies (a kind of body memory as it were) was no longer available as a stable resource through which patients could imagine a particular type of action, through amputation of the physical body, and the presence of phantom limbs. Our ability to anticipate is based in large part on the logic and reason that we gain through experience of given situations. Simply said, if you've never had a

prosthetic limb before, it is difficult to imagine how it will function[61]. This loss of both future and past has the combined effect of rendering both these categories unavailable as a source of generating rehabilitative hope. Hoping for recovery in prosthetic rehabilitation is connected with predicting and anticipating movement.

While the rhetoric of hope connects it strongly with the future, and therefore with recovery (Delvecchio-Good et al 1990, Crapanzano 2003), the actual 'work' of hoping is located very much in the present. Without the past as a vehicle for creating a framework for anticipation (it is difficult to anticipate how a prosthetic limb will work without experience of its usage) and in the presence of a radically foreshortened future complicated by increasing ill health for most patients, the staff do their best to locate hope in the present. The question becomes not only 'what' patients hope for, but 'how' they go about the business of hoping.

The staff and the patients are therefore actively engaged in locating hope in actions, and hoping becomes something that is 'performed' daily in the gait clinic. Dualisms such as 'walking movement = movement = autonomy' and 'sitting = stagnation = passivity' are manifest in both the actions of the staff and in the advertising materials that span the walls of prosthetic components companies such as Ottobock Healthcare. Researching online also brought motion and hope together: 'Life is movement,' exclaimed Kathy, one of the Ottobock amputees who I found featured on their 'real life' motivational website.[62] Does this then imply that a life without movement is no life at all? Or that the more we are able to move, the more alive we are? That someone is 'still moving' is after all often used as shorthand for proof of life.

I asked one day if the Bela Clinic had any archive photos that I might use, and though there were none of the buildings which had been my original goal there were a series of

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[61] Ironically enough, this is remarkably similar to what Van der Port's (1998) Serbs had to say about being Serbian!

[62] www.ottobock.com

‘before and after’ pictures that I was shown which were very striking. What I noticed most about these pictures of upper limb amputees (where the patients had been photographed first without their prosthesis and then with it in position) was that in the former, they had been pictured standing straight or side on, clinically, gazing straight ahead, whereas in the later they were pictured smiling, picking up blocks, drinking, jumping: ‘using’ their prosthesis (see figure 11 in the next chapter as an example). In other words, in action.

While I discuss the various readings of these images in the next chapter, what interests me here is the way in which motion is conceptualised in rehabilitation, and, leading on from this, the way in which function is understood in the realm of prosthetics. The idea that amputees had been rehabilitated when they could wield their prosthesis was very strong, and as previously mentioned, one of the social workers on the staff even suggested to me that if the patients turned up at the benefit offices wearing their prostheses then they would not receive a benefit, and therefore he suggested to patients that when they were claiming their benefits, turning up in a wheelchair, or on crutches could be beneficial. The patients were thus encouraged to utilise those elements of their body aesthetic that were conducive to getting their disability allowance, just as Staples (2003) describes people with leprosy in India revealing and concealing disfigured body-parts in order to beg. The differences in being able and disabled are thus tied both to ideas surrounding what exactly the accepted level of deviation from normative body aesthetics should be, which, according to the anecdotal evidence from the clinic social worker, would seem to be based on the capacity of citizens to labour, in a very Marxist sense.

Often, as I watched patients begin to stand and to learn the art of walking with a prosthesis, it seemed to me that they were struggling with a ‘hopeless’ endeavour. If the gold standard of walking is to be bipedal, unaided, and wholly without a gait deviation, then these patients were so far off track as to render this possibility unattainable. However, it seemed that their sessions in the gait clinic provided them more with a

chance to measure themselves against each other, and against progress for progress' sake. In the broader sense of the rehabilitative ethic, it would appear that getting a patient to stand is preferable to having them wheelchair bound, and being able to undertake some form of ambulation (no matter how strange) was further preferable to having them static.

Over and above the examples listed on page 104, at various stages, Mauss (1950), Bourdieu (1977,1990), and Ingold (2004) have all shown that simply standing carries with it meaning (we can say 'to be a person of high standing', 'to stand on one's feet', 'to stand up for oneself'), walking perhaps even more so ('to be walked over', 'to stage a walk out') and legs can become a metaphor that also yield a fruitful result ('to leg it across town', 'having a leg to stand on', 'to be on one's last legs', 'to have a leg up on your competition') for our ability to generate independent action.

In the Bela Clinic the ability to generate action was so integral to locating and performing hope in the 'here and now' that simply to be capable of walking in some form seemed to be more important than what exactly that form took. In the gait clinic, strange ambling gaits that left walkers exhausted and unbalanced appeared to be preferable to lives bound to wheelchairs. Patients and staff egged each other on in the gait clinic, coaxing and cajoling each other from across the room. Fights broke out occasionally over who had the right of way on an apparatus. Elderly gentlemen in shirts and bathing shorts were hoisted into their leather harnesses and tottered back and forth between parallel bars. Exhausted by their morning training, a

Fig 8: Prostheses in their storage shelves.

fair number of the patients would retire outside to smoke in the courtyard, or play chess in front of the bakery, or (if it was too cold), in the large hallways outside their rooms. Those who came late, or who finished long gait sessions, ended with the smell of lunch wafting through the hallways. Limbs were dutifully doffed, and duly returned to the storage racks.

An overwhelming majority of patients left their limbs in the gait clinic, and indeed for most of the day they went without them; the rules of performance being that the prosthesis was worn for neither too short a period (meaning that rehabilitation was prolonged), nor too long (which increases the chance of a friction sore developing, which in turn results in not being able to wear a prosthesis ergo, longer rehabilitation time). The gait clinic was therefore delineated both in terms of time and function as the primary space in which prosthetic rehabilitation occurred. The tools of this work: the prostheses, were left on site for the next shift. This 'work' was thus confined to regulated hours and was always undertaken under the watchful eye of a staff member.

Due to the need for regulation and supervision, it was in the gait clinic (or the amputee gym in Warren and Manderson's case) that the main performance of hope 'in motion' occurred. Within the industry of prosthetic production, and especially the field of lower limb prosthetics, both amputees and their rehabilitation teams (called 'prosthetic teams' in the Bela Clinic) engaged with the rhetoric and discourse that surrounds ideas of the 'normal'. This quality of normalcy was quantified through gait deviations, or rather the absence of them. The more qualities of an aesthetically 'natural' gait one mastered, the closer one moved to normal. The closer one moved toward normal, the more fully one had embodied or internalised the qualities of the prosthetic. Of course, the prosthetic paradox is that to imagine being aesthetically 'normal' at all, one must embrace fully the reality of living with an unconventional body, as well as internalising the inclusion of mechanical and/or electronic parts of a body scheme. Amputees are far from the only group of people to whom this applies, though this is a discussion that I shall shelve for now.

That hope and rehabilitation are bound tightly together does not perhaps come as a surprise to many of us. However anthropological enquiry into hope is somewhat thin on the ground. Some of the notable exceptions being Crapanzano (2003), whose work on the paralysing hope that he found among white South Africans during apartheid I have found particularly illuminating. Also useful has been Webb (2007) who mines the scope of social science literature available to distinguish 5 forms of hope that we move between (Patient, Critical, Estimative, Resolute and Utopian), concluding rather miserably that perhaps, what it is to hope will always elude us. I read Miyazaki (2004, 2006), whose difficult texts delve into the methods of hoping, contrasting desires for technological superseding, with our on anthropological hope in critiques of capitalism. I have also referred to Delvecchio Good et al. 1990, in addition Warren and Manderson 2008 (both for a more medical take on hope). It is still difficult to flesh out a theory of action where hope is concerned however, even though we see the hard work of hoping going on all around us on a daily basis. Surrounded by what many might call 'hopeless' circumstances and stories, through the course of my fieldwork in the clinic I came to wonder, not simply what people hoped for (which was a difficult enough category to unpack), but perhaps more interestingly, *how* they actually went about the business of hoping.

Space and Recovery

If the gait clinic set the court for the performance of hope, then the therapists were the team members who set the rules. Rehabilitation in the Bela clinic was broken into two phases, pre and post prosthesis. Many of the patients had serious long term co-morbidities alongside their amputation, and required a lengthy period of physiotherapy simply to be considered as candidates for a prosthesis. Others had difficult residual stumps to mould and perhaps ongoing oedema, and still others had simply been burdened with slow working prosthetists. All these patients were confined to the pre-

Fig 9: the pre-prosthetic clinic.

prosthetic clinic. The immobility of the patients was evident even in the layout of the pre-prosthetic clinic, where evenly placed benches lined the walls, with space for wheelchairs and therapists to manoeuvre between them. Here patients made use of hand-held dumbbells and sand weights, as well as engaging (often less than wholeheartedly) in a programme of modified calisthenics to build up their upper body strength, both in preparation for long days holding themselves aloft, and simply to be able to self propel wheelchairs and/or utilise crutches whilst waiting for their prostheses to be produced.

Very few of the patients could actually make use of crutches during their initial pre-prosthetic period due to lack of muscle tone. There was a split in opinion in the clinic as to whether using crutches early on in rehabilitation was even particularly good for the patients. Some of the therapists that I discussed it with thought that anything that got the patients up and moving about exercising was a good move, whilst others told me that being proficient at getting around with crutches too early meant that patients were more likely develop problems with their remaining knee (or to be affected by muscle strains in their upper body), and were less likely to become fully invested in the process of prosthetic rehabilitation. While motion is the goal of prosthetic rehabilitation, it is prescribed movement, concerned with ambulation, or at least assisted walking: what's more, too little, or too much of the wrong type of motion could jeopardise this goal. In preparation for walking, patients also had an exercise regime to strengthen their sound leg, as well as their gluteals and their residual limb, as wielding a trans-femoral prosthesis requires significant muscle tone especially through the buttocks. In fact, I

noticed increasingly that many of the patients in the gait clinic had a gait pattern[63] which showed that they were still substantially lacking strength.

The gait clinic was connected to the pre-prosthetic clinic by a large double doorway, though both had an additional separate entrance. This allowed the therapists to move back and forth, between the pre-prosthetic patients, who exercised largely independently, and the gait clinic, where patients required more supervision. Three sets of parallel bars were laid out with mirrors located at one end, and two of the walls were lined with a shelving system for storing the limbs of the different patients, a small ramp with railing occupied the central space and there was a small set of stairs for practicing on in the corner. There were two additional benches for weight exercises, for when space was tight in the pre-prosthetic clinic. Additionally the parallel bars closest to the window had a long low bench, which was used during the alignment assessments by the prosthetic team.

Fig 10: the gait clinic

While there were a couple of chairs placed in various spots, there were no seating arrangements like those described by Warren and Manderson in their Australian setting, who mention that family members often come to watch and support from these seats lining the walls (2008). The lack of these seats then corresponds accordingly with the

[63] This gait pattern was reasonably easy to spot. The patients would be slightly leant forwards, the weight of their upper body resting heavily on their walker/crutches/parallel bars, their backside pressed back, and their biological leg (if they had one) locked tense with each step. Each step required a hasty shuffle forward of their prosthetic limb.

lack of this type of activity. When family did come to visit, they often spent their time sitting at the bakery, or took the patients with them out into the city, or simply sat outside chatting. Family time was seen as something different to therapy work which was clearly marked as being the space within the two adjacent clinics. While the gait clinic might appear spacious, it was often used by dozens of patients at once. These patients left wheelchairs lined up in the wall spaces not already taken up, or simply left them in the centre of the room, creating an impromptu obstacle course. It was also a common occurrence to have two or more patients on the same set of parallel bars, which had a tendency to lead to a commotion if the patient in the fore wished to turn before the one bringing up the rear.

While Warren and Manderson (2008) also found that their physical and occupational therapists divided time between many different types of rehabilitative inpatients and therefore had low levels of direct contact hours with amputee patients; within the Bela Clinic it is the therapists to whom the patients become most attached (from my personal observations and from interviews with both patients, physicians and therapists). Nikolina suggested to me that this might be because they go through a 'personal journey' together, and that in terms of real contact hours, they spent a great deal of time together. It is the therapists who noticed when small adjustments to the prostheses were needed, who noted where friction points irritated the skin of residual limbs, and who coaxed reticent patients into their harnesses, occasionally downright frogmarching them along the parallel bars. A memorable session that I attended, included one therapist trailing her patient (a small frazzled looking woman who by this stage had graduated to walking with a support frame) constantly reminding her of the order in which she should co-ordinate her movements. As the patient walked, the therapist would bark out 'Nogu, Glupa, Protese...odlicno[64]!

In many ways the therapists of the Bela clinic became the translators of Kurzman's 'unknowable' language of alignment (2002). In his excellent chapter in Ott, Serlin and

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[64] leg, bottom, prosthesis...perfect!

Mihms' edited volume, Kurzman explains first hand the experience of using and learning how to perform able-bodiedness through the process of being fitted for a prosthesis, which is known in the prosthetics industry as alignment. In describing this performance of alignment, he shows that the language gulf between the amputee and the prosthetist is often so great that there are literally no words to explain the experience of learning to perform the process of alignment. The language becomes one of ritual performance; actions here speak louder than words. Kurzman posits that prosthetists become expert at interpreting the subjective experience of amputees. In the Bela clinic, one of the many functions of the therapists appeared to be bridging this prosthetist/ patient relationship. In the clinic one morning I observed Maria, one of the physical therapists, teaching one of her patients through mimicry. 'Don't walk like this', she cried out in frustration, at the same time copying the woman's walk. 'Put your hips forward, trust in the prosthesis, push with it.'

Hoping through walking is taken as an unproblematic signifier of the desire for a move (back) toward engagement in the social sphere. This symbolic and literal move outwards is also evident in the way that patients used the space of the gait clinic. The first steps of a patient learning to walk are taken in the enclosed space between the parallel bars, which offer both the safety of handrails, and the security of a wheelchair placed at one end. The patients graduate to walking an outer loop of the parallel bars, completing a 'round' with one hand for guidance before turning and supporting themselves on the opposite side. Free from a static structure, they then graduate to using a walking frame, full and then elbow crutches, before moving on to one crutch, and finally being able to walk unaided. Throughout this period, they began to expand their walking area outward from the bars, to the perimeter of the gait clinic itself, to walking in the corridors, and (weather permitting) out into the grounds.

The final two categories were rarely mastered completely in the gait clinic. These capabilities were in many cases above what many of the patients wished to achieve. Many aimed to get to the stage of being able to support themselves within their homes

with the walker. These patients were classified as indoor users. Many also never learned to adequately don and doff their prostheses. Instead, their rehabilitation programme was extended to include teaching family members how to help hoist them into position, and how to tighten the harnesses, look for signs of sores and ulcers and how to clean the sockets and liners. These patients and their families also went through a period of learning wheelchair skills.

Kurzman (2001) notes an important difference in the epistemology of the largely bio-mechanical American prosthetics clinic when compared to the biomedical hospital or health clinic. He posits that the alignment room of the prosthetics clinic can be seen as a place of performance, in which the transformative qualities of a ritual are played out both on and through the bodies of amputees, who are socialised in the process of alignment. During these ritual performances, both the societal perception of the person and the personal perception of one's self is changed (ibid). this is the creation of a new *habitus* (in both Mauss' and Bourdieu's senses). The structure and staging of this performance of Kurzman's description still ring true in my research setting, although what he calls the language gulf is mitigated by the presence of the gait clinic therapists within the Bela Clinic, something that he alludes to being an increasingly common feature of prosthetic alignment.

The therapists form a pool of knowledge which is easily accessible to the patients (as they spend all their 'rehabilitation hours' together) through a shared language. Through the use of jokes, and the telling of stories, by translating action to speech, they provide a source of feedback from which the patients can generate hope. Like the therapists in the Australian clinics with whom Warren and Manderson researched, at the Bela clinic, when patients were 'progressing' it was through their individual hard work, while setbacks were always located externally in a wider matrix of objects and events. This is vital to understanding how hope is generated by the staff through the reinforcing of good behaviours (taking part in exercise regimes), and the externalising of 'bad' behaviours, because many of the staff were complicit in the same alternative ideas of health that the

patients had (often partaking of the same ‘vices’ as their patients). Through creation of motivation in the moment from one day to the next patients could always be deemed to be making progress.

Within the gait clinic, the physical therapists bridge the linguistic gap between prosthetist and patient. It is they, rather than the prosthetists, who spend the most time with patients and are therefore better equipped to notice the slight changes in posture that signal an ill fitting or badly aligned prosthesis during usage. It was often (though not exclusively) the therapists who I saw placing height adjusting spacers underneath the prosthetic feet of patients, working out if the shaft of the limb needed lengthening or shortening. If something was wrong, or needed adjusting, then the patient’s assigned prosthetist and/or physician would be called and the necessary alterations made. It was the therapists to whom the patients complained and confessed on a daily basis. Patients were not always compliant with their rehabilitation trajectories. They might refuse long sessions, or complain incessantly about pain levels, rubbing prostheses, they might sneak foods into the clinic, continue to smoke, drink, sometimes not even turn up for their sessions. In contrast, Jadranka was a good example of what the centre saw as a committed and compliant patient.

Jadrenka

I had noticed her in the Gait clinic, where amongst the leather and epoxy limbs, her transparent (and therefore temporary) suction socket, and mechanical knee had seemed starkly different. Having watched her progress, some weeks later I organised an interview with Jadrenka, together with her physician Bovan. It was he who informed me that Jadrenka had been admitted to the clinic at the same time that an Ottobock representative turned up and asked if any of the patients would be suitable candidates for a trial. While she had recently retired, Jadrenka was still a good decade younger than many of the patients and was in relatively good physical form. Her residual limb was well healed as she had been at home for four months, during which time she had refused the offer of a wheelchair, and had learned to use crutches whilst looking after her

granddaughter, while her daughter (who was a lawyer) and son-in-law were at work. Unlike many of the patients who seemed unsure of what type of benefits they were entitled to, or who were unwilling to kick up a fuss to get them, Jadrenka received a monthly benefit, which her husband had helped her apply for in Belgrade, and she couldn't understand why the others did not apply as she felt it was not a complicated matter. Her husband had also recently retired, but had spent his life working in one of the more famous firearms factories, the staff of which had been scaled back to about 50% in recent years. He had been very supportive throughout her recovery.

Like many inpatients, Jadrenka had made trips home to visit, though hers had been confined to the weekends and had not been often, only twice. Instead one of her daughters in Belgrade had been to visit 'several' times. Bovan told me that her amputation had been due to vascular problems, and Jadrenka told me proudly that she had not smoked since her operation. She had been one of the more dedicated patients, spending two to three hours exercising in the clinics before lunch, as well as another hour-long session in the afternoons. This dedication had meant that she had mastered the art of the vacuum socket, which in turn meant that Ottobock had paid for it, and would continue to pay for its maintenance, in return for Jadrenka's time in the future. It also meant that Bovan had written her a prescription for a mechanical working knee, rather than a safety lock. Jadrenka told me that she feels there will be few barriers with this leg. She could confidently walk with elbow crutches, and had mastered the steps, which she felt was important as there are stairs in her home. Driving is not an issue for her, as she stopped when she married and her husband has always driven her. In fact, she was planning to leave in a couple of days as her training was finished. Bovan told me that there were three other patients chosen to trial the suction sockets, but that all of them had been unable to master their use.

Jadrenka was looking forward to leaving behind what she called the 'bad' aspects of the Bela clinic, namely the hygiene and the cramped living quarters, and to moving back to her family home. She had been focused on this outcome and remained optimistic

throughout, said Bovan, despite having had some setbacks with her health. This ‘playing by the rules’ had served her well. In return for receiving her socket and follow up care free of charge, Jadrenka had agreed to be a ‘testimonial’ patient for the Ottobock, a role which would involve being present during workshops and presentations, for which she would be unpaid. Jadrenka was therefore a model patient, literally singled out as an example to which others should aspire.

To walk then, is to hope. But interestingly, within the trope of prosthetic rehabilitation, the opposite also holds sway, namely that to hope, is to walk. What walking is, is further defined as bipedal ambulation, un(or at least minimally) assisted, and additionally, to be independently capable of the actions that necessarily accompany prosthetic ambulation (mastering the art of donning and doffing a prosthesis), as well as to self-regulate one’s behaviour in relation to the prosthesis - through stump and socket liner maintenance and good prosthetic hygiene.

Imagining Action in Rehabilitation

This process of (re)learning through action, is perhaps best examined through Actor Network Theory. If success within the realm of amputation means having an anatomical aesthetic that allows one to pass as normal, then the prosthesis is arguably the primary agent through which this passing becomes possible. However agency, as ANT theorists (Latour 1987, 1988, 1993, Callon 1991, and Law and Hassard 1999, among the most prominent), argue, does not automatically imply intention. Prostheses may have a type of agency, a potential one, although we cannot ascribe them with intention, no matter how many cybernetic or high technology components they contain. Success is only relative to the capability of the wearer to wield their prosthetic with expertise. This is not a light undertaking either. The process of fitting and wearing a prosthetic limb is often painful (Gallagher and Maclachlan 1999, Kurzman 2002). Leg stumps are not able to bear the weight of people, and the very possibility of being able to use a prosthetic is contingent on a surgeon’s proficiency to leave the stump with a cushion of flesh to shield

the bone (Ott et al 2002). Standing and walking, much less running, with a prosthesis is a process of relearning the techniques of the body that we consider normal (Kurzman 2001, 2002, Gutfleisch 2003). The performance of prosthetics is enacted differently by different parties involved in the design, the creation, fitting, wearing and repairing of a limb (Mol 2002). Prosthetics therefore invoke the practice of daily life. They imply a move outward, a social 'standing' and a life beyond the wheelchair (Srinivasan 2002) although for many of the patients in the Bela clinic this life beyond the wheelchair was only enacted in specific environments. Nonetheless, in order to create the aesthetic of a whole or 'complete' body, they also reduce the physical body to a sum of it parts, where a seemingly endless range of possibilities exist for picking and choosing body part replacements and additions.

Different types of amputations and prostheses require the user to relearn body techniques in different ways, older style limbs, strapped on with a harness are wielded differently from those with a suction cup to fit the wearer's body. These different attachments pose different problems for the stump as well. Additionally, though, they have not arrived in Serbia, Osseo-implanted prostheses, first developed for dental prostheses, are now being investigated for limb attachment. Here the implant is literally screwed into the length of the bone that remains, which is allowed to scarify and integrate the titanium fixture. This protrudes from the skin, so that further prosthetic devices may be screwed on, according to the wearer's need. This is yet another future/ present representation of body parts perhaps that more clearly begins to show the ambiguity between what is enhancement and what is disability. In addition to the still prohibitively high cost of such implants and the continuing infection problems of the physical interface between the end of the stump and the protruding metallic screw, part of the reason for the limited use of Osseo-implanted limbs is that the titanium 'limb' is so much stronger than the original bone to which it is attached. Therefore, should the biological limb suffer stress shock such as when competitive running, or in the event of an accident, it is likely that the body's own organic bone will be compromised before the prosthetic, leading to further injury. Here again we can see the potential for the body to

become prosthetic to the machine in much the same way that Perry (2002) described in World War One Germany almost a century ago.

Interestingly, Winance (2006) has published on how action (in an ANT sense) is made possible for people with neuromuscular disabilities through wheelchair choice, and focuses on the ways in which the testing of a new wheelchair forces both wheelchair users, personal assistants and wheelchair salespeople to examine, deconstruct and reassemble what we generally think of as 'ways of being in the world'. Winance argues that

> Action is the result not only of distribution but of a long process of negotiation between a person, the devices he or she uses, and the collective in which he or she is included. 'To act' implies hard work from a patient, those surrounding him or her, and the aid itself... and this work transforms them (53-54).

She refers to this testing of wheelchairs as 'adjustment'. This adjustment is fundamentally synonymous with alignment within the gait clinic, a period which the relationship of a person to their prosthetic add ons becomes evident and uneasy. These relationships are tested out, made and unmade in different ways, culminating in the incorporation of the wheelchair (or prosthesis) into the body's schema, and the cementing of the temporary relationship between the patient and this prosthetic aid (Winance 2006). Each subsequent 'adjustment' (for my purposes, an alignment) thus represents a new negotiation of the networks that make up a way of being in the world: which of them are rigid and cannot be altered, which are malleable and which can be dropped altogether. This dialogue is ongoing and ambivalent, as some possibilities for action emerge, others become impossible (ibid).

The ways in which hopes, dreams, desires, and plans appeared to be blurred together in Serbia made me wonder how it is that we delineate between these categories, each of which resonates with wider ideas of anticipation, the future, the present and the past. Ideas of the everyday, and of 'normal life', of grief, loss and recovery are played out in

specific ways within the prosthetics clinic. With this in mind, along with being about understanding how hope is generated in the clinic, this chapter is also an attempt to understand how two central and contradictory tenets of amputation surgery can simultaneously be true. These are that amputation is the embodiment of lost hope (Warren and Manderson 2008), and that amputation is a reconstructive surgery (Sherman and Jones 1995, Sherman 1997).

How might this be possible? Let us first engage with the more straightforward of the two, that amputation might embody lost hope. Amputation is not usually a decision that is undertaken as a primary health care measure. In many cases, either due to traumatic injury or because of failing cardiovascular circulation, multiple interventions and surgeries will have been attempted in the hope of retaining bodily contingency. In vascular cases for example, surgeons often attempt the re-mapping of major arteries and blood vessels in an effort to increase circulation. These attempts are often clutched at by both medical staff and patients. In traumatic injuries, attempts are often made to save as much of the limb as possible. During an interview that is mentioned more fully in the next chapter, Radka recounted to me the story of her journey to the specialised military hospital after her traumatic injury where after many attempts to save her leg, a sepsis infection had set in. Her impassioned cry at the end that they had ALMOST saved her leg and subsequent breakdown in tears led me to believe that she felt it was so much worse that the possibility for recovery had been there for almost a month, only to be snatched away at the last moment.

Amputation in the vascular cases lends itself to a slightly different analysis, although here as well the loss of hope is evident. Here the body's own vascular system has turned against itself in an ongoing process of disruption and death. The choice to amputate is often a question of whether an ageing or extremely ill patient will survive anaesthesia (Warren and Manderson 2008). Patients often struggle with failing sensory awareness and motion in their limb preceding their amputation. This 'death' of a limb might be signalled by gangrene, sepsis, sores, failing sensation, stiffness, and/or immobility and is

often considered to foreshadow the death of the patient unless there is medical intervention. The choice of whether to amputate then might be framed as a choice about when to die and how? As Warren and Manderson explain

> Professionals promote the notion that by delaying immediate death, eventual death (usually explained as from cardiac, cerebrovascular, or renal complications) will be less awful than a death from gangrene and associated septicaemia (2008: 191).

In the Bela Clinic, these cardio-vascular patients were somewhat more ambiguous in the eyes of the staff, as their amputations, often caused by diabetes or cardiovascular problems, have their origin in bodies with appetites that are framed as excessive, or in a very Foucaultian sense, unable to govern themselves. That is to say, patients ended up in the clinic in their current states due to their habits of eating fatty, sugary food, their smoking, and their lack of exercise: all indicative of their weakness of will or moral rectitude. They were in need of external monitoring, and those who continued to eat fatty foods, smoke and do the minimum physical exercise to get by were seen as ultimately sabotaging their own recoveries.

Amputees at the Bela Clinic had all been at home, or in a previous hospital, recuperating from their limb surgeries before undertaking rehabilitation. Some were at the clinic for their second or third stay, receiving a new socket or prosthesis. Seen as a sequence of events, the gait clinic was the penultimate period in prosthetic rehabilitation, a postoperative period following a timeframe where even people who had been at least reasonably physically active before amputation had undergone a surgical procedure, something which had rendered them immobile or at least incapacitated to some degree over several months. In the gait clinic, all the patients were in the process of regaining their mobility. I will readily admit that this is vastly simplified, framed as what Frank (1995) might term the ‘restitution’ narrative, where the hospital is a stepping stone back into the realm of health. Interestingly though, in some ways the clinic itself contributed to the ill health of the patients. I was told by many of the therapists that a majority of the

patients actually put on weight during their time in the clinic, due to their general inactivity and the fact that the daily routine of the Bela Clinic revolved around mealtimes.

During prosthetic rehabilitation, the process of a return to 'normal' is negotiated by people whose anatomies have been fundamentally changed, and while we might well argue that the normative body has been shown by many theorists of the body to be an abstraction, the fact remains that practices of rehabilitation (in the case of lower limb amputation) still take standing independently, and the lack of discernible gait deviations as fundamental and unproblematic signifiers of 'normalcy'. There are some degrees of deviation from an 'average' or 'normal' anatomy that can be tolerated, and some that cannot. In upper limb amputation, as with ambulation, these signifiers are aesthetic as well as functional, but mostly a moot point to my research anyway - the Bela Clinic had no money with which to provide amputees with myo-electric prostheses.

The push for normalcy in prosthetic rehabilitation is driven in many ways by larger networks of international manufacturing companies. The discourses of rehabilitation that accompany the products and services that Ottobock health offer, in their self proclaimed role as the 'only truly global partner in rehabilitation' offered and indeed continue to supply were a truly dazzling array of jargon and gendering. I recommend even a quick perusal of the prosthetic 'patient and user' section of www.ottobock.com, should one wish to personally experience the sparkling selection of possibilities available to a potential 'customer'.

In the 'real life inspirational story' internet clip mentioned above, 'Kathy' is on a trip to Berlin, and is seen having her makeup done, on a fashion shoot, shopping, skipping with friends. She exclaims brightly 'I just love life and I live it with two legs and not one' before twisting her c-leg knee so that it rotates a full 360 degrees in its socket. Like all prosthetics advertising models, she is shown as 'enhanced' rather than disabled, her lifestyle clearly something to be desired. In other life stories, men undertake activities

like riding horses, driving sports cars, and sailing. One states ‘I’ve noticed that we do most things standing up’ while yet another shares his relief that his leg is ‘always there’, whilst he holds his grandson aloft.

A trip to visit a private prosthetist showed me the disparity between life on the ground in Serbia, and the imagination of futures that the prosthetics industry promised. Marko’s tiny shop was located deep in the back alleys of the Novi Sad old quarter. Raised up from street level it was an unassuming little place. Two posters covered the window and the glass door. One was of an ice hockey player with a prosthetic leg. The other was of a man in shorts, with a clearly visible Ottobock ‘c-leg’ bent down on one knee, lifting a child. From this little premises, Marko made a modest trade in prosthetics, orthopaedic aids and insoles. Business had been tough. Specialised orthopaedic foams are a niche industry in any situation, but here in Serbia a German company had a monopoly over the market. Now a cheaper French firm was attempting to break into the market, this had resulted in an import war, where due to complaints over legal issues to do with importing, both companies had been stopped at the border and their shipments impounded. Now in house stocks of materials were running out for everyone and the situation showed no signs of being resolved soon.

I had come to Marko’s together with Janko. Without any source of income Janko had turned to orthopaedic insole consulting and freelancing. It was a tricky business however, as the way that Serbian business culture operates meant that he often had invested time and equipment before finding out that his clients could not or would not pay the prices that he was asking. Marko was one of the contacts from whom Janko bought materials from, and with whom he worked from time to time. We were here to find out about a pair of insoles that they were working on together, and Janko was to introduce Marko to me, in the hope that he would be able to help me out with my research.

The shop was divided into two areas, the front, which functioned as the shop area, was marginally cleaner than the back, which functioned as a workspace/storeroom. There was a strong smell of epoxy glue, and components were jammed onto every conceivable shelf. Marko bid us sit down, and lit a cigarette. He had a new apprentice who made 'passable' coffee. I pondered the health hazards of smoking in such a dusty environment and felt vaguely uneasy about the effects of the glue and smoke on my lungs. I was still in the early stages of my research then, and had not yet given up on the idea of interviewing military amputees. As a private prosthetist Marko told me that yes he dealt with them, but he was unwilling to grant me access to them.

As we left I looked at the posters again. They showed such ingrained ideas of normative masculinity. Both the men in the posters were in their thirties and attractive. Although the posters were now both dog-eared and sun-bleached, I could still imagine the supersaturated colour scheme as it must first have appeared. The implications that I took from those posters were that the prosthetic body was safe, masculine, that wearers of prostheses had happy satisfying home lives, and could take part in dangerous and manly sports: that they could be, or regain a life as 'one of the lads'. Later in my research I searched the Ottobock websites, and found the same, men on horseback, driving powerboats, swinging children, carbon fibre legs, with tattoo effects. A focus on the super-macho, or in the case of female amputees, on the hyper-feminine: legs with stocking effect, with high heel adaptors, toenails that could be painted. The way that prostheses are marketed is as much about the reproduction of normative, and idealised aesthetics as it is about restoration of normative functional movement.

While increasing numbers of academics, philosophers and scientists discuss the ways in which they want to embody their prostheses and incorporate them into a body schema so that they disappear from thought (see the works of Sobchack 1995, Kurzman 2001, and Wright 2009), what strikes me is that the very act of talking about them brings them hurtling back into appearance, pushing them out of an incorporated scheme. Paradoxically, even as prostheses offer up the possibility to make us imagine a whole

and integrated fusion of flesh and technology; they also compartmentalise the body, and the process of talking about prostheses as integrated, shows simultaneously exactly how they are different to biological limbs.

Zoran

Zoran is a 25 year old refugee from Knin in Croatia, and this is his third stay at the Bela Clinic. His leg was amputated due to a tumour when he was 17. Zoran is actually entitled to a new prosthesis, but likes his initial one so much that he has just been having it repaired since 2003. His amputation and recovery took a long time, both from when his tumour was discovered to the point of surgery, and from that point to a stage where his limb was sound, as during his 'recovery' period he had to undergo chemotherapy and an additional operation on his lungs. He took a year to recover before his initial stay at the Bela Clinic.

He walks into the room unaided, though with a noticeable limp, apologises for the time it has taken him to get to the room and mentions that he has been having hip problems recently. Zoran arrived with his parents and two brothers in Belgrade in 1995. He lives in a collective home for refugees in Belgrade together with his father and younger brother. There are 17 families in the collective, and they each live in a small house, and although there is no running water inside, there are 4 taps to share between the families in a central courtyard. They receive three meals a day, or have the option to cook their own. Zoran works from home on his computer, and his father works for a state company so gets a small monthly income. He used to work in security (as a nightclub bouncer) but was never paid and made the decision to give it up. By working at home, he maintains contact through phone and email with the people he met here the first time he came to the Bela Clinic. He does not go to the refugee centre (a support centre for refugees from the former Republic of Yugoslavia) because he feels its not really 'for' him. Zoran has been here this time round for three weeks, and has already adjusted to being back. He goes to gait school and watches TV most of the time. His amputation is at mid thigh, and

he has a prosthesis with a vacuum socket and a mobile knee. His ongoing hip problems have meant that this prosthesis has had to be shorter than recommended due to his method of walking. His current method of walking works for him and comes easiest to him, but exacerbates his hip problem further. The doctors have been pressuring him to change, because, while his limb has been paid for by the fund, there were not many options to choose from back in 2003 when he first got the prosthesis and they feel a newer model would help him to achieve more normal ambulation.

Many things in the interview stand out, such as when Zoran tells me that he would like to get permanent work with telephones or computers and to claim an unemployment benefit in the meantime, but that he cannot register at the unemployment office, as he would lose his status as a refugee and thus a place in the refugee collective. He tells me that he does not want to ask for help, and as such receives no benefit, though he accepted a one off payment for a toilet. He does not want to change his prosthesis, as he says it suits him and he is used to it. It means that he can get out and socialise with his friends. He has no choice but to stay in the collective, as his father is ill. He fears that the shock of his amputation caused his father's diabetes. Zoran also tells me though, that he has a 'normal' social life, and that he goes out with friends when he can. Perhaps most importantly, he tells me that he is dependent on the Bela Clinic, which he can access although he is a refugee, and it is his biggest reason for staying. While not a citizen, his insurance status covers the clinic, which binds him to Belgrade - although he longs to travel.

Zoran's choice to wear a particular prosthesis, shows that for him, this network has become defined, it is no longer malleable. In opening up the possibility for social action (going out with his friends, walking unassisted) it has closed other possibilities (the possibility of travel) and rendered other actions uncertain (his ongoing hip problems). His ambivalent citizenship too, closes and opens the possibilities for his rehabilitation (the covering of his medical costs, the exclusion from unemployment benefits). The possibility of action for Zoran is embedded in a network of both human (prosthetists,

therapists, government workers etc) and non-human (his prosthesis, the computer, his citizenship) actors. The ability of these networks to withstand or embrace change might be considered the resilience of a technological matrix. To be resilient, a technology must be transformative and mutable whist remaining appropriate (De Laet and Mol 2000). Zoran's changing circumstances lead to constant renegotiations of the possibilities afforded to him each time he needs to have his ageing prosthesis repaired. These negotiations are really about the testing out of which links in the network are still appropriate. The realisation of his dream to travel for example, would force a renegotiation of his relationship with the Bela Clinic, and it was very likely that his deteriorating hip would at some stage do the same with his ambulation.

Prosthetic hope then exists and is performed through the possibility for action. This is quantified as a return to bipedal ambulation (in lower limb amputations), or the possibility for normal 'reach' radius and to act out social cues such as shaking hands, driving, dancing (in amputations of the arm) which in turn are taken as signifying that one is embedded and active in a social environment. These hopes are unmade and remade in the process of alignment, through the hard work of all the actors (human or not) involved. As Winance concludes 'the person is made up as normal and different by the specific links making him or her' (2006: 67).

We are all in some ways made simultaneously able and disabled through the collection of body, technology and their corresponding relationships. Through alignment, a paradoxically transformative and yet concrete body emerges, which must be renegotiated over time. The networks that form an 'extended body' (family members who help to don and doff prostheses, components that wear and tear) are mutable, as are the more abstract networks that facilitate access to these resources. While the physical and quantifiable markers of alignment are negotiated within the gait clinic during a given period, hope for normalcy exists in a precarious state of possible unmaking and reassembling, and as specific possibilities open, others close. Amputation in itself is a transformative act, where potentialities emerge that appear to be conflicting, that is, the

loss of hope, and the restoration of it. It is through their capacity for labouring action that citizens are defined, and through action that patients are remade into citizens, that their hopes are realised, that the networks or 'collectives' in which they are embedded are unmade, scrutinised or tested and then renegotiated. Patients are thus transformed into specific types of people, who are simultaneously disabled and normal.

The Ghost in the Machine

Pragmatic Prostheses

In a therapy room in the lower floor of the Bela Clinic, I am chatting with Nikolina, the head physical therapist. Bojana, my occasional translator and often research accomplice, is also here. It is February. It is cold, and outside, a veritable mountain of coal for the boiler appears to have been belched forth from the bowels of the centre overnight, sprawling over the car park and covering everything outside with a fine veneer of grime. We three are squeezed into a two meter square treatment space partitioned off by a grubby curtain, the watery Belgrade morning light slipping in over the draped partitions. Space is tight in the cramped workspace. Nikolina seats herself in the only chair whilst Bojana and I clamber onto the treatment bench. We are taking a break from ostensibly touring the facilities, discussing therapies, pragmatics, and prostheses, on what is my first official day down in the therapy level. Currently she is discussing issues surrounding stump pain, phantom limb sensations, and phantom limb pain, three different issues 'of the flesh', that are both compounded and mediated by the use of prostheses.

In the course of our conversation, I ask Nikolina what she thinks a prosthesis can, and cannot, do. She pauses for thought and uses an interesting turn of phrase for the prosthesis, calling it the 'compensation'. Pressing her on what she means by this, I get her to elaborate:

> For many people seeing an amputee for the first time can be disturbing. The prosthesis creates a compensation for this negative image. Whether this compensation is successful depends on the skill of the prosthetist to create a prosthesis that is the most appropriate for the amputee and the skills of the therapists to give the amputee the best training possible.

She continues:

> It isn't enough to have a great prosthesis. Even if you have the newest, the most expensive... if you don't complete your training it's going to be of no use. All the therapy in the world will not help if you have a badly fitted and poor quality device. It is a combination of the two that leads to success.

For Nikolina, as for the prosthetics industry as a whole, this success is measured primarily in what is referred to as the absence of gait deviations. This is the prosthetic paradox in praxis. The body, as Grosz (1994) has argued, is not simply the addition of various mechanical parts, but a unified whole. Building on the works of Merleau-Ponty (1962), she posits that 'the body "knows" what its muscular and skeletal actions and posture are in any movement or action, quite independently of any knowledge of physiology or how the body functions' (1994: 91). A prosthesis works by utilising the body's knowledge of its complete normative self, whilst simultaneously assuming that pieces of this whole can be replaced by machinery. Passing, or appearing as normal as possible, is the motivation behind much of the rehabilitation taking place in the Bela clinic, as it is internationally. The patient and their prosthesis are embedded in a network here: of machines, actions and technologies, of meanings about normality, of the reproduction of these meanings, and the pathologising of the absence of 'normalness'.

Far from being a straightforward process however, an interview I conducted with a physical therapist showed me the most obvious, and variable component of this network - *veze*. Miljan was one of the therapists with whom I spent most time: after hours observing the gait clinic I would sit with him and discuss the questions that had arisen in my notes. He in turn would ask me about other gait labs that I had been in, particularly in 'Anglo-Saxon[65]' settings, motion sensor capture and new alignment possibilities.

There were a large variety of prosthetic limbs on display in the storage racks in the gait clinic on any given day and the long hours I spent in the clinic meant that I had ample opportunity to inspect them. I noticed eventually that the assignment of either 'safety' or

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[65] Like many Serbs who I talked with, Miljan separated the 'western' regions of the world into American, European and Anglo-Saxon countries.

mobile kneed prostheses seemed almost arbitrary among trans-femoral patients[66]. One morning, I noticed that a man who appeared fit and healthy was practicing walking with just one elbow crutch and a very basic safety knee limb, whilst a heavily overweight gentleman was attempting the parallel bars with a swung knee and what appeared to be a rough hewn wooden socket[67]. What on earth was going on? Discussing them later, I discovered that the first patient was one of Miljan's. I wanted to know if there were some doctors at the centre who prescribed mobile knees more often. What was the criteria for choosing who can have one? 'Safety, primarily' he answered and explained to me that the doctors must judge whether the patient will have the adequate muscle strength to control a knee, otherwise there is the possibility of collapse. No one wants a patient to fall and injure themselves or their leg.

I wondered how on earth the overweight gentleman, who had managed about 20 minutes of labour intensive movement, had got the prosthesis he had. Miljan told me that it was probably though *veze*, and that the leg came from Rudo[68]. He was certain that it would not have been prescribed to the patient by one of the Clinic's doctors. He shouted to one of the other therapists, 'Hey Maja, how did Zoran end up with that Rudo leg?' and she shouted back from the next room. '*Veze*, His brother works there[69]'. I was confused. Even if he could access one, why would he want a leg that he could not use properly or that increased his likelihood of falling? I felt like I was missing something. Miljan shrugged:

> I don't know. Maybe he feels like it makes him more physical or something, you know, you've gotta be in form to use one, and if

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[66] A safety leg has a knee that must be manually collapsed in order to bend or for the purposes of sitting, usually by pulling a release lock at hip level. A mobile or active knee locks and collapses as the user walks, but requires a greater degree of physical control.

[67] It was a wooden socket. I discuss the manufacture of wooden sockets in chapter 1.

[68] The private prosthetics and orthotics company located on the same property as the Bela Clinic.

[69] Brat - Lit. brother but could in reality refer to any related male cousin.

> he's got one, maybe he thinks like he's still young... don't worry though, he'll probably never use it, he likes his wheel chair...

Miljan mentioned that some of the doctors over prescribed safety knees. They are a 'safer' option, and negate the need to ask the patient about their activity levels and desires for fitness. A locked knee gives more security to the patient, but less motion. The first patient I had seen in the above example was strong and proficient and rehabilitating quickly, so I asked Miljan if it would be possible for him to ask for a swing leg later. However, once the original prescription was written, this then becomes the basis for all later replacements and alterations. He tells me that 'it's a shame that some of the doctors aren't interested in going into all the details'. What a prosthesis means, and what a prosthesis does, are clearly two different things. Zoran's fancy prosthesis propped up on the wall at home makes a very different statement about his masculinity than when it is wielded badly in praxis.

Prosthetic Networks: ANT in focus

I feel that some basic understanding of Actor Network Theory (ANT) is important to understanding the relationship between technology and the potential for movement. A limb on the wall at home has the necessary potential for agency to make a claim about Zoran's masculinity, and this potential for movement is far greater whilst the limb is not actually attached to him. This is because once he puts it on, his shortcomings of physical prowess curtail the possible movement. It will likely sit, as Miljan said, propped up against the wall while he uses a wheelchair to get about.

Looking at prosthetic relationships necessarily entails engaging with a range of theories from across the social sciences. As artefacts of material culture, prostheses engage the practice of daily life, they are culture made material. As objects, they are embedded in complex networks of human and non-human agents. Thus they bridge the gaps between material culture, science and technology studies, and phenomenological understandings of the body. As citizenship is enacted through both policy *and* practice, ANT is useful

for understanding how these relations are cemented through performance, and is most easily described as a type of material semiotic theory in which the relationships between people, objects, technologies and organisations are mapped by material (i.e. solid objects) and conceptual (semiotic) links.

First developed by Latour (1987, 1988, 1993), and more recently expanded by Callon (1991), Mol (2002), De Laet and Mol (2000), Law and Hassard (1999), and Law and Mol's (2002) works, an ANT description deals with 'how' a network takes the form it does. The theory is that through a full and thorough description of these networks and the actors that make them up, a clearer picture of 'why' the network takes that form will emerge. Furthermore, the above authors all show that a network itself is always precarious and has the potential to break down. These breakdowns expose the inner actors of a network, usually obscured though a process described as punctulisation, an easy example of which is the way in which a driver interacts with a car as a single solid object. It is not until a breakdown occurs that all the small working parts, computer technologies, networks of trade and necessary theoretical concepts that make up the car become apparent and each actor becomes visible. Agency within these networks is not located within actors (or objects) themselves, but in the inter-subjective relationships between them. These relationships are cemented through practice. By framing technologies as responsive, adaptive and mutable, and showing how networks can be stopped or cut by actors within them, ANT theorists show that flexibility is often a crucial factor in the resiliency of these networks of ideas, objects and flows of capital.

As the actors in a given network are necessarily composed of relationships between other actors and objects, it could be argued then that a seemingly endless network might be created. However the work of Strathern (1996) has shown us the capacity that networks have to be cut by human intervention in the form of patents and intellectual property rights. In a similar way, the networks that make up objects such as prostheses may be broken down by warfare, international sanctions, changes in the structure of the health system or changing laws regarding the status of citizens. Additionally, if we look

at prostheses through the lens of the works of Haraway (2000) and Haiken (2002) it appears that (as in the case of Zoran's leg) agency is not located within the prosthesis itself, rather it is its potential 'humanness' or agency that is harnessed by the wearer who incorporates it into a seamless whole. The amputee, like the automobile above, or indeed, like one of Haraway's many cyborgs (2000) is therefore punctualised in this process, interacted with as a singular solid object embedded within a network, yet composed of a myriad of smaller objects and networks which may be revealed though the picking apart of these relationships.

If success within the realm of amputation means being able to pass as normal, then the prosthetic is the agent through which this passing becomes possible. Often accused of ascribing agency to inanimate objects, prostheses are an excellent counterpoint to critiques levelled at ANT, showing, as ANT theorists argue, that agency does not automatically imply intention. Prostheses have an obvious potential agency, in that they are a catalyst for action, and, it is also clear that we cannot ascribe them with intention, no matter how many cybernetic or high technology components they contain. They are always 'added on' requiring, by default, something to be attached to. Furthermore success, as Nikolina was keen to remind me, is only relative to the capability of the wearer to wield their prosthetic with expertise. This is not a light undertaking either. The process of fitting and wearing a prosthetic limb is painful (Gallagher and Maclachlan 1999, Kurzman 2002). Akin to the breaking and remaking of a *Habitus* of body movement (in the Maussian sense - 1979). Even when an optimal match of surgical skill, rehabilitative care and prosthesis design occurs, a range of other biological effects can occur; retraction and cramping of muscles in the residual limb can lead to a permanently flexed stump, the skeletal face of the amputation can sprout a proliferation of boney growths: the stump can be too long or too short for a particular prosthesis type.

Should one be considered to be a good candidate for prosthetic rehabilitation, it does not take long to discover that walking, much less running with a prosthesis is a process of re-learning the techniques of the body that we can consider 'normal' (Kurzman 2001,

2002, Gutfleisch 2003). This performance of prosthetics is enacted differently by different parties involved in the design, creation, fitting, wearing and repairing of a limb. Prosthetics therefore invoke the practices of daily life that we take for granted. They imply a move outward, a social 'standing' and a life beyond the wheelchair (Srinivasan 2002). In order to do this, however, they also reduce the body to a sum of parts, where a seemingly endless range of possibilities exist for picking and choosing body bits.

Prostheses are, after all, things, objects, they have physical dimensions and attributes, but by investigating them as a site of production of social 'norms', we can see that while the field of prosthetics has its own history, it also maintains an uneasy relationship with the fields of anthropology, disability studies, sociology, science and technology studies, medical history, and rehabilitation. Most recently, amputees have been analysed as bionic beings, cyborgs if you will (Haraway 2000). They have stood in as metaphors for modernist anatomy, for institutional power structures, for nationhood or even empire (Nelson 2001, Wright 2001). Prostheses and bodies have been studied as ways of disrupting the body order, by those influenced by the works of Foucault (1989, 2006) and Bourdieu (1977, 1984). However it is rarely that prosthetic devices, 'as social objects with a complex set of meanings in the daily lives of people' have ever been 'understood as part of vernacular material life' (Ott 2002: 2).

I wish to suggest that there is a difference between the historically constituted prosthetic body, and the cyborg. The mapping out of already ascribed notions of class, nationality, gender, socio-economics, culture and history onto and through the body through its articulation with prostheses should at least make us think long and hard before utilising metaphoric prosthetic devices as a source of novel allegory. It is particularly tempting in current medical anthropology to declare the body as absent, as obsolete, its primacy diminished in a technological future that renders humans ancillary to their technological components - replaceable organs, bionic body parts, the internet, mobile phones - here bodies have been framed in terms of a natural progression toward a hyper-technological global future (Cerqui 2002, Cleland 2010). For these bodies, questions of historicity and

loss do not feature. The very scarcity of practical ethnographic prosthesis based research, and the lack of research that takes prostheses as fact-of-life, when contrasted with theoretical prostheses (such as Wills 1995), or phantom powers and amputated identities (such as Wright 2001 and Nelsons 2001, 2001b works) points to how little we understand how bodies and technologies mesh together in the 'real' world.

There is always a difficult learning curve when technology is brought into contact with the body. New amputees have a tendency to compare their prosthesis to their organic leg, whereas prosthetic veterans compare new legs to older ones (Sherman and Jones 1995, Kurzman 2001). Despite advice that this is possibly detrimental to their mental health and that it discourages them from making progress in their rehabilitation, if our ability to anticipate action is based on previous experience, then how else might one go about learning to walk than by using a framework that already exists in our mind? An entire habitus of bodily movement is broken, more or less abruptly, and a new one must be learned, created in the environs of the gait clinic (as discussed in the previous chapter). Here more than ever we see the potential agency, not only of the prosthesis itself, but of its shadowy spectre. It is here that we enter the realm of the phantom limb as agent. Like symbiotic twins, each plays a part in bringing the other to life.

Nikolina recognised this as well. Far from simply replacing an absent limb with a present mechanical device, she told me that the presence of the phantom limb is helpful. 'It helps the patient to wield the prosthesis' she said, and is there inside the prosthesis. 'For below knee amputees' she said, 'the prosthesis becomes like a boot, like a shoe that they wear'. I thought of Davor[70], who told me that his prosthesis was something to fill the 'empty space' in his shirtsleeve, and wondered if, in the same manner, a phantom limb fills the empty space within the prosthesis.

Prostheses show us just how the techniques of the body are re-membered (literally!) through amputation, from walking, sitting and standing, to cleaning, donning and

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[70] First mentioned in chapter 1.

doffing prosthetics. Sherman and Jones actually describe amputation as a reconstructive surgery (1995). While *they* frame this in terms of the 'usefulness' of mechanical limbs, versus damaged or 'useless' biological ones; to understand how this might be possible anthropologically, an understanding of pain, sensation, appearance, and dys-appearance as applied to stumps, prostheses and limbs (both biological and phantomised) can be drawn upon.

Back in the Bela Clinic, we continue our tour, coming to the currently empty gait clinic, located across the hall from the previous treatment room. Legs line two of the walls of the clinic, in various stages of completion. Most are of the above knee variety, with a leather harness. Each has a shoe, and corresponds to a particular patient who arrives in the gait clinic wearing the matching one - most often a sneaker. Most of the patients do not take their limbs to their rooms. Bojana explains, 'There isn't the space, and there is always the possibility that they will fall over and get damaged'. 'Although, there are always exceptions', grins Nikolina, 'we once had a patient who wore his all the time, he even slept in it!'

Pondering this lack of room in the patients' dorms, Bojana and I went to find a young patient Lazar in his room. The patients in the Bela clinic were divided into 3 wards, A, B, and C, and these were divided by gender, with two for men and one for women. I needed Bojana's help in many of my endeavours to track down patients as due to numerous extensions to the buildings, the space that had been B ward was now C, and B was now A, and following directions on the walls was a hopeless undertaking, everything was located elsewhere. It was therefore difficult to track down patients in the maze of corridors.

We eventually found him that afternoon in one of the men's wards. Whilst I knew from conversations with Bojana and other staff that patients shared 'close living spaces', this turn of phrase did not adequately describe these shared rooms. The room was painted a dull blueish, greenish grey - a dank dirty patina which may have at one time been any

one of those colours. Four beds were packed foot to foot along the opposing sides of the room, and one stuck out perpendicular from the window opposite the door. The room was bustling with elderly men, and, due to the lack of chairs, people sat on the beds carrying on conversations with their wheelchairs parked outside the room. The wall space not occupied by beds was filled with lockers and sets of drawers. Extra blankets and pillows were piled to make cushions. A table was set up in the centre of the room and patients on wheelchairs were sharing a plastic container full of *cvarci*[71] whilst playing chess. A jar of whole pickled chilli and a flask of what appeared to be *rakija* also took up the remaining space on the table. Lazar lay on a bed in the right hand corner, quietly holding a handkerchief to his nose. The room smelled of unwashed bodies, wound dressings, chilli, grease and stale smoke. My immediate thought was that the handkerchief was not going to help in the long term, but Lazar just had a nosebleed.

We made our way to the quiet upstairs therapy room that we had taken over as an interview room, and Ana, Lazar's doctor, joined us. She told us that nosebleeds were quite common among the amputees due to their increased blood pressure. Lazar arrived shortly after. Softly spoken, he asked to be interviewed in English, which he had been learning in college.

Lazar

Lazar was 17. His right arm up to the shoulder had been amputated in an agricultural incident in October. His arm had been caught in a thresher whilst he was helping out on his parents' land. After spending time recuperating at home in his village in southern Serbia he arrived in the centre in mid December. At the time we spoke he had a sore on his shoulder which meant he was unable to wear his prosthesis. We spoke of his time in the centre. Lazar said he felt very out of place when he first arrived, like he was a rat in a laboratory with everyone looking at him.

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[71] Small pieces of salted fried pig fat.

He was the only patient under the age of 20 and it was often difficult and boring in the centre. As an upper extremity amputee he had a different course of treatment to the gait clinic. He had two sets of therapy, a total of three hours a day, one session concerned with donning and doffing the prosthesis, and another concerned with life skills, for example learning to write with his left hand, and shaving one handed. In reality these two categories were not so clearly defined, as the sessions were informal, the therapists allowing for flexibility in training dependent on factors such as his current sore. When we discussed his family, Lazar said that he felt his parents were doing their best to support him, but that they did not want to show how upset they really were. His brother lived in Belgrade and visited him daily, and he spent his time outside of therapy reading or walking around Belgrade. He smiled and said that this was the only good part, the chance to live in a big city where things happened, 'you know how it is in villages,' he shrugged, 'nothing ever happens'.

None the less, Lazar wanted to go home, back to school and get on with life. He missed his friends and said that he talked to them on the phone, and that he had learned to send text messages with his left hand. He wanted to study agricultural science at university in Novi Sad and was excited when I told him that some of my friends taught in that department. Lazar's prosthesis was a non-functional cosmetic limb and he told me that he had a 'strange[72]' feeling when seeing it for the first time. He could not describe this strange feeling for me when I asked him, either in English or in Serbian, and later I thought of how disconcerted I had felt when I saw all the cosmetic glove prostheses in Nikolina's office.

Reading bodies

Lazar's admission that he felt as though he was in a laboratory with everyone looking at him, is perhaps not so far from the truth. The staff often took photos of the patients, before and after receiving their limbs. Looking at them, it appears to me that there is a

[72] čudno - strange, weird.

clear stylistic divide between clinical photos of amputees prior to their rehabilitation, and those taken after they have received their new limbs. In the former, patients stare straight into the camera or stare off into the distance in profile. They appear without expression, less person and more an object of scientific interest. In post rehabilitation shots, they are caught ‘in action’, moving, lifting, and playing with objects. They smile into the lens, apparently aesthetically completed and appearing content. Archival photographs reveal amputees with prosthetic limbs, at work, in motion, standing and walking. Those without prostheses are shown sitting square on, or baring their

Fig 11: Staff rehabilitation photos - Bela Clinic archives.

unfinished limbs. There are of course multiple ways of interpreting these images: but almost universally they depict a move from passive to active, from dependence to independence, from patient to functioning social citizen.

There are of course various groups of people who are routinely photographed for medical research, among them the inter-sexed. Dreger’s (2007) work on people with visibly unusual anatomies shows how the effect of photographing these individuals, in clinical settings, with a measurement grid behind them has the effect of pathologising them. The obscuring of their eyes with a black rectangular box, whilst for the purposes of protecting their privacy, actively dehumanises them, while those who know these

people will still likely recognise them. In exposing themselves for photographs without their limbs, amputees, in much the same way that the inter-sexed reveal their anatomies, shed light on a twist of both prosthetic and gender rehabilitation. In order to alleviate feelings of difference, or of having an unusual, or abnormal anatomy, these differences are displayed, examined and represented in ways that make people feel these distinctions even more keenly.

The paradox of the prosthesis is that it imagines a whole complete body, but does so by dividing the body into parts that can be replicated and then replaced. It also imagines an 'over-complete' residual body, where a phantom limb can inhabit a prosthesis, flowing into it and 'bringing it to life' if you will. In the clinic pictures it is clear that the prosthesis is viewed as the catalyst for this transformation. It masks the endings of a body and imagines a whole. This whole or complete body is accomplished aesthetically, as well as biomechanically. Without it, patients are rendered immobile, incapable of action, and dependent. It is this aesthetic that I wish to examine here. That of the amputated body, and of the prosthetic body. These two body schema often, though not always, overlap, and are interesting when juxtaposed with notions of citizenship; of what it means to be a good citizen, and how the prosthetics industry is bound up in these modernist citizenship aesthetics.

The amputated body, and the prosthetic body can be read in many ways, given location and context. The pinned-up sleeve or trouser leg of the veteran on ANZAC[73] or V day, serves to remind us of sacrifice and citizenship, of personal cost and the personal and national price of war. Military amputees are often ambiguous figures. Depending on the outcome of the conflict, they may be considered heroes, champions of a cause, willing to give all for king and country, or they may be scorned; becoming objects of pity and pariahs of society, living reminders of bad decision making, or of what was fought and

[73] Australian and New Zealand Army Corps. Celebrated nationally in New Zealand and Australia, and by antipodean diaspora making a pilgrimage to Gallipoli, Turkey.

lost. They may also be recast as belligerent state welfare abusers, draining resources in an already war weakened economy.

Until relatively recently the amputated body was more visible than it is today, partly due to the very nature of prosthetic rehabilitation. Prostheses impose their own set of demands on the amputated body. They require certain lengths of residual limb, muscle padding, blood supply, limb strength, stump shape, and a course of physical rehabilitation. These prerequisites are easier to achieve when the amputation is due to an illness, where surgeons can take their time to achieve symmetry and perfection; luxuries that were until recently unavailable to many military surgeons. Without the possibility (or the desire) to attach a prosthesis, the amputated body was more prevalent. In many places, pinned-up sleeves or trouser legs are still a hallmark of many a veterans' parade, though less so as the years progress. As military and paramedic triaging has become more advanced patients have more options available to them. In addition to military amputation, throughout the ages, punishment by amputation has been a recurring theme; hands have been amputated; ears lopped off as punishment, eyes have been taken for eyes, fingers, toes, hands and feet hacked as warnings, either for individual transgressions or as a practice of spreading political terror in the population, as in the case of Sierra Leone, where 'Long sleeves or short?' was the chilling choice of having one's arm taken below or above the elbow by Revolutionary United Front (RUF) rebels in Sierra Leone's 10-year civil war. Over the course of the war, these rebels mutilated some 20,000 people, taking hands, arms, legs, lips, noses and ears with knives, machetes and axes. The campaign was a macabrely ironic response to Sierra Leone President Ahmad Tejan Kabbah's plea for citizens to 'join hands for peace' in 1996. These victims were a living symbol used to spread terror among the population and to deter people from supporting the government, and remain a powerful visual reminder of the horror that spread throughout the land (Bergs 2007).

French (1994) is one of few anthropologists to have delved into the experiential world of the amputee. Her work on the Cambodian amputees injured by land-mines is some of the

only work that examines how amputee bodies are 'read' in situ within the societies and contexts that create them. Far from inciting compassion amongst fellow refugee camp members, French finds that amputees are objects of fear and derision, their amputations physically indicative of a karmic failure. Many of these amputees had previously been soldiers, and had entered the resistance army through a moral obligation, to secure the patronage and protection of their commanders. Once injured however, even in the course of 'duty', they lost their usefulness and were often abandoned back into their villages, where their value as civil citizens was also diminished.

Layers of Buddhist teaching were also mapped onto the amputees' bodies. While being born human is good fortune in itself, ranks of status and virtue among humans also exist and an incomplete or crippled body is, as French ascertains, benighted indeed. To have been healthy and suddenly have lost a limb is then a fall in karmic status, and a rapid one at that. Amputation thus becomes a sign of 'bad fortune' both in terms of destiny and in the practicalities of daily life. As now diminished beings, the amputees are no longer capable, or even expected to behave like able bodied 'civilised' people. Although in an ideal Buddhist worldview, French states, the proper response to this from able-bodied citizens would be compassion, in the resource scarce refugee camps on the Cambodian-Thai border, it is reconstituted as wariness, through the now dangerously volatile nature of the embittered amputees. Much of French's research makes the claim that although it is undoubtedly a personal experience, amputation is also constructed through social interaction.

Within the aesthetics of amputation itself, a type of political display of body parts can be found similar to that Staples (2003) found among lepers. Just as he found, there is politics involved in the display or concealment of stumps, many amputees at the Bela Clinic felt the desire for what Nikolina referred to as 'compensation'. Some of the patients I met were occasionally even distressed by their own fleshy limits. One of them, Predrag, who had a partial hand amputation, told me that he wore his prosthesis (called a cosmetic glove) *all* the time. He didn't like looking at his hand without it on. Since it

was wearing out and he was at the centre to have a new one fitted, he kept his hand in his pocket when he could not have it on.

Another of the patients, Jovan, told me that he had to leave the centre the first time he attempted to go through gait school, as he felt 'nervous' being surrounded by amputees; he felt that they were all 'freaks'. He has found his new life increasingly difficult at home, where he lives upstairs at his son's house. Despite attempting to teach himself to walk again, Jovan had eventually suffered a bad fall whilst using crutches, and so he has returned to the clinic after a 2 year period. Now he feels safe within the clinic's fences. He only returns home at the weekends, and spends his free time playing cards with the other patients.

Amputation has the power to disrupt the sense of the physical end of the body, for both the self and the observer, through the absence of organic limbs, the presence of phantom limbs, and through the presence (or absence) of prostheses. The concealment or displaying of class and citizenship is negotiated and decided upon here, mapped onto the body's territory. Not only class but also gender is reproduced in this attaching of body to machine. First, amputation remains for the most part a man's world, both in terms of patient numbers and in the gender of the prosthetists. Whilst not the case in the Bela clinic, I often felt distinctly uncomfortable in the manufacturing workshops of Rudo, where amateur glamour-girl calendars adorned the walls, a heavy smell of industrial glue hung in the air and the prevailing aesthetic was a stoic relationship between man and machine. It felt at times like an old army boys' barracks. In their field guide 'The Amputee's Guide to the Amputation and Recovery Process', Sherman and Jones (both military surgeons) encourage men to choose a functional limb, noting that it is unfortunate that women

> tend to stick with cosmetic [arms] largely because they don't like the look of a pair of hooks sticking out the end of their sleeves... it's true that [functional prostheses] don't yet look and act like a living hand but they are coming closer (1995: 26).

For these two military surgeons, it couldn't be more 'normal' that women were seemingly concerned with style over substance. More men than women are amputees in Serbia, as in many parts of Europe and the United States. The mainstream prosthetics industry is bound up in military institutions in Serbia as elsewhere. In light of this, Radka's[74] desire for a more feminine appearance was viewed by some staff as frivolous. Which, while interesting in itself, is made doubly so by the presence and opinions of other women on the ward. Miljana, for example was not concerned with a feminine appearance. She wanted to go home as fast as possible to her family and get back to work. They were depending on her to bring in a wage, as both her and her husband were involved in the 'informal' work sector.

Miljana

Miljana came to Serbia fourteen years ago as part of a mass migration of refugees from the Dalmatian coast in Croatia together with her husband and (then) 9 month old son. It was very difficult in the beginning as neither of them were registered as refugees, but eventually they both found work and built a house in Ruma. Miljana's husband is a carpenter and she is a cook, but they are still not registered to work. Back in the year 2000, Miljana noticed pain in her right leg, which persisted despite treatment she received during a wrong diagnosis of 'inflammation of the ligaments'. Because of this, she was told to have an MRI which cost her €200, and as she had no insurance to cover the costs took some time to save up for. Six months later she went to the military academy orthodontics hospital for a biopsy and a course of physiotherapy. They discovered she had a cancer of the bone. After having chemotherapy to reduce the size of the tumour, Miljana's leg was amputated in October 2008. Now in early 2009 this was her first visit to the centre as she has had to wait for another round of chemo and for her leg to heal. She is new in the clinic and has only been here for two weeks.

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[74] One of the younger female patients.

Miljana is a regular visitor to the Bojana's little library and gets around on crutches. Yesterday, she was measured for her prosthesis (below knee right) and will have her first fitting tomorrow. Miljana tells me that she really likes her doctor Ana and the young student intern who is sitting in with us agrees. Ana is well liked among both staff and patients for her lack of formal hierarchy and her willingness to pursue new solutions. Miljana does not know anything about what type of prosthesis she will have, or about the fitting process, but she knows that she will be at the centre for approximately 2 or 3 months. She has heard from the nurses a little of what is involved. I mentioned previously that (as is the case in many hospitals) the nurses play a huge role in providing information to the patients and are generally overstretched and under appreciated.

Miljana tells me that she was scared at first when doctors told her about the amputation, but says that it is good to be able to talk about it. She was more scared about coming to the Bela Clinic than she was about the prosthesis and was definitely more scared about the cancer than the amputation because she is still afraid that it might come back. Ana, who arrived during the telling of this tale, looks at me hard from across the room, and says that in her opinion, the stress of being a refugee and the 1999 bombings contributed significantly to the formation of the cancer.

Miljana's husband is supportive and her children as well; the younger daughter (9) accepted her amputation very quickly. She would like to go back to her job as a cook if possible, and has been doing exercises to build up her strength as well as using crutches instead of the wheelchair. Occupational therapy is not an option for her as the centre can only fund a couple of patients at a time - Ana thinks this is a shame as Miljana would be an excellent candidate; however, there are limited resources and space and Miljana is a refugee on a 'grey' wage. So she watches television and reads. She tells me that she would like to have an active life without a cane or crutch. Actually, she says, she does not mind, she just wants to have any life. A positive and optimistic view of life is very important to her, and only one thing annoys her here at the clinic. She would like to use

the computer to learn how to use the internet in the Telenor[75] sponsored-club room but it does not work on their dated computers (and has not worked for months). Due to her chemotherapy, Miljana sometimes wears a wig, but mostly has either a hat or just a scarf on, as today. She agrees to me following her story as she is fitted for the prosthesis. The reality is that I never see her again however, apart from a terse greeting in the hallway the next day. I learn that her cancer came back and is spreading aggressively, she has gone home to be with her family.

The majority of the patients in the Bela Clinic had co-morbidities of some description: diabetes, heart disease, and/or cancers. Additionally they were often from low socio-economic families. Most often they were geriatric patients. The majority of women patients fell into this category. A great number of them were widows, who currently lived with the family of one of their children, most often a son. These women often received a small pension from their husband's previous employers, and through their stories one could see the history of the Serbian economy. Some had husbands who had worked in ammunitions factories, some had themselves been *gjestarbietere*[76] working in factories and on farms in Germany in the 1970s and 1980s. Without exception, all the women either were, or had been homemakers and mothers, some working in offices and libraries but far greater numbers of them had simply been farmers wives, working the land, pickling paprika and cabbages. These were the same babas who sent food packages of tightly wrapped smoky salty *sarma*, and boxes of *proja* to their grandchildren, my friends in Novi Sad. They were almost exclusively short, pudgy women with slightly smudged edges, who smelt of talcum and age. They chatted or smoked outside in their hallways in wheelchairs pushed tightly together and swapped the latest photos of their grandchildren. The question of whether *they* would like a more cosmetically appealing prosthetic limb was never raised either by staff, or among their ranks.

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[75] Telenor is a Norwegian owned, mobile network operator. Their Serbian branch ranks 2nd of 3rd domestic providers. They are the largest foreign in Serbia, and engage 'in the development of Serbia, financially, technologically, socially and culturally (from telenor.com/global-presence/serbia 2012)

[76] Guest workers

Radka

I don't feel pain when I'm in the gait lab no, only when I'm sitting. But yes, I feel [my leg] it's there, I know of course.

Radka, aged 22, was one of the many agricultural patients who had arrived at the Bela clinic in the autumn. She arrived for the interview in sneakers, tight grey track pants, full make up, and a slouchy pink 'puma' brand sweater. Radka had left school and married at sixteen, and now had two children, aged two and six years. Her leg had been caught in a hay-baling machine in July 2008. She was rushed to the Belgrade Military Academy hospital where her leg was almost saved. During recovery however she contracted a sepsis infection and the leg was amputated at the femur in September 2008. Radka arrived at the Bela Clinic at the beginning of November, and now in a few days time, at the end of February, she was going to be returning to the home she shared with her husband, children and parents-in-law. Her husband is a police officer in their small village in southern Serbia and she told me that he was very sympathetic, as he had also recently had a thumb amputated in an agricultural incident. Radka, like many other of the young agricultural amputees had never worked in the agricultural sector before. She had been helping her in-laws when she got caught by the machine.

Radka had gone to an economics high school. She wanted to go and work in a business company. Suddenly she burst out crying and reiterated that they *ALMOST* saved her leg. She told me that she was motivated and accepts her injury but then cried out that 'of course I'm emotional, I used to be healthy and normal'. 'Everyone' comes to visits her, and her parents were with her constantly at the military hospital. As it is a long and difficult drive to Belgrade her husband visits only 2 or 3 times a month but in between her therapy and gait training, she reads, and has made friends with some of the older women. All the friends that she has made are from the women's rooms, despite there being a relatively large group of young men of similar age and background.

Radka was very interested in the specifics of her prosthesis. She told me that she had an I.C. socket[77] with a mobile foot. Her first foot (a SACH[78]) had problems so now she has a dynamic foot. This was not completely covered by the state welfare beneficiary. She also has a slimline neoprene harness but had to find the money for this and the foot herself... And the neoprene sock that goes with the harness... And an additional €300 adapter so that she can wear whatever shoes she wants and cross her legs. Nikolina, who was in the therapy room at the time, reminded Radka that every prosthesis is just an aid, and depends on the motivation of the user (After Radka left, Nikolina further explained that with so much information available on the internet sometimes patients place all their faith in technology and this gives them unrealistic expectations). Radka looked sullen at this and said that she practices at least two hours a day. She is glad to be finished with the gait clinic finally as she had many adjustments. Nikolina says that she thinks a standard issue limb would have had more possibilities. Radka doesn't look impressed. She tells me that she doesn't have any problems with donning and doffing her limb as 'It's like pulling on a pair of tights'. The temperature of her stump remains stable. She will get a foam cover for the leg this week for cosmetic reasons.

I feel that there is a bit of a showdown going on between Nikolina and Radka by now. Again Radka notes that they *almost* saved her leg. I ask her if this was a good or a bad thing, considering the loss of function that she would likely have had, if they had managed to save it. She does not know, and says that it's not worth thinking about. Her plan is now to find a good job without too much walking involved and to get an automatic car so that she can pick up her children from school. She does not feel phantom pain when walking, only when sitting down. She can endure this pain. Like many of the amputees, Radka has not looked into the government sickness benefit, and

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[77] The Ischial Containment socket was developed through a number of revisions to prosthetics design in the 1940's and 1950's but became widely used in Serbia by the 1980's. Without becoming overly technical, it remains a popular socket design due it its ability to control lateral tilt on the femur.

[78] SACH is an acronym for a foot type. It refers to 'Solid Ankle, Cushioned Heel'.

tells me that while she will try to apply she is not confident of receiving anything. Finally she tells me that she is just trying to live as normally as possible.

After she is gone, Nikolina stays to talk, she tells me that she thinks Radka is afraid of losing her husband. That is why she is spending so much money for cosmetic adjustments, like the harness that allows her to wear tight jeans or track-pants, and of course the knee adaptor so that she can cross her legs. In fact, throughout the interview Radka had been questioning Nikolina on other limb models that were more cosmetically appealing than her current one. If she could afford all these adaptions, what was she doing at the centre, I asked. It transpired that the extra components were all paid for by her local church. They had had a radio appeal for her. This did not happen so often these days Nikolina told me, but had been quite common after the war[79].

In fact when I asked around in the private sector who it was that bought limbs and how they paid, when even a basic mechanical below knee model could set an amputee back €1200 (the average monthly income rested around €300) a particular picture of pragmatism and *veze* emerged. Down at a large private clinic in the south of Serbia, when I met with the director, his press team gave me the example of two local police officers, who had been injured in the call of duty. Their colleagues had had a collection to raise the money required. This altruistic giving can be considered a citizen led charitable beneficiary, able to provide what the state cannot. There was however, obviously a moral component to it. Police officers, honest hardworking homemakers, those embedded in their communities as model citizens, injured in the service of the country, whether it be harvesting or patrolling could draw on public support. It is doubtful that Davor (chapter 1) could have drawn on such a network.

'What if I want a better knee than the one I am allocated?' I asked a number of physicians, and prosthetists, including Dragotin, at Ottobock Healthcare in Serbia. I was

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[79] A prosthetist that I interviewed at Rudo also mentioned that during the war this had been a common occurrence.

Fig 12: Amiee Mullins on the cover of Dazed and Confused, September 1998.

thinking of the doctors at the clinic who prescribed safety knee components as a matter of course. 'then I'll sell you one!' he laughed, 'you get your prescribed leg, and then you come down here to the clinic and we replace the knee with the new one! It's easy.' 'Couldn't I get it made with that knee to start with and pay the difference?' I asked. Wasn't it a waste that the components were then used up. He grinned, 'that would make sense wouldn't it, but welcome to Serbia!'

Whether or not Radka was really worried about still being desirable, there is a market in specially designed women's prostheses that captures a specific type of prosthetic femininity. One of the more prominent women in this regard is Amiee Mullins, bilateral amputee, athlete and muse to filmmakers and fashion designers, owner of many pairs of limbs, 'barbie doll' cosmetic legs, Cheetah® running limbs, hand carved solid ash wooden limbs, created specially for her by British fashion designer Alexander McQueen, as well as a pair of transparent resin 'Cinderella' legs, made specially for her role in Matthew Barney's Cremaster Cycle III film from 2002. In fact Mullins lays claim to more than 10 pairs of legs, allowing her to vary her height from 5'8" to 6'1". She has stated in various media[80] that being a double amputee makes her the ultimate canvas, as she is not constrained by needing to have one limb match a biological leg. What then should we make of the fact that Mullins, who appears in fashion shows, magazines and film, will not be photographed without limbs on, and famously refused to comply with Matthew Barney's direction in the Cremaster 3 films, stating that to capture her without her prostheses would strip her too bare, and leave her

[80] via a number of TED talks (www.ted.com) and during her period as guest editor on the www.gizmodo.com online technology portal.

feeling too vulnerable[81]? Residual limbs, stump surfaces, unnatural endings of the amputated body, interfaces between machine and flesh. These are, if we are to believe Mullins, something private, something that would, if seen, leave her exposed. E. Wright (2009) calls her prosthetic limb 'the secret of [her] self' and writes:

> It hides, tucked beneath clothing, allowing me to pass as something that I am not, that I can never be. It is precious to me, it enables me, gives me mobility and an aesthetic that would cease if it was removed from me. Within my body schema, my prosthetic [sic] is as much a part of my body as my skin, blood, and organs (2009: 1).

What do we make of James Gillingham's photos of female Victorian amputees, skirts discreetly lifted, or prosthetics advertising from the mid century, of Vargas-style pinup girls with subtle plywood limbs, or of the prevalence of female amputee videos in file-share sites such as youtube.com? There is an undercurrent of voyeurism which is gendered fully toward women. The female body, attached to an artificial limb, is read in a different way to the male one. Here, the amputated body is something to be hidden, encased in the prosthesis (Smith and Morra 2006). A number of Mullin's limbs, whilst giving her a doll-like appearance, are not designed for stability. This means that she must either remain moving or be held up. To this end, she is often photographed in motion or sitting/lying. These limbs are costly, high technology, made from desirable materials by designer companies far out of reach of many women. They are also vulnerable and precarious, and require Mullins to have just the right height of shoe to match the arch and a supporting prop in the vicinity should she wish to rest. Even more strangely, while

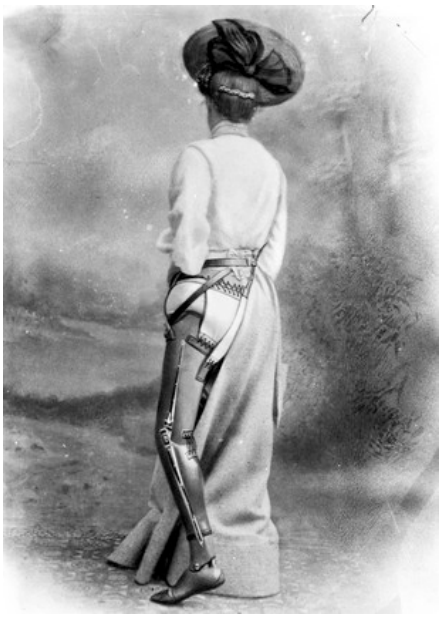

Fig 13: Amputee with a hip dislocation - James Gillingham

[81] Barney filmed her with transparent gelatinous octopus tentacles instead...

Mullins can't bear to reveal her amputation, something so private that it exposes her in some intimate way, she has made a name for herself as a model, appearing nearly naked in many instances.

Within the walls of the gait clinic, amputees of both sexes wore shorts (slashed to the waistband) so that their harnesses could be easily adjusted. None were afforded the possibility of hiding their injury, even if they personally wished to. Many told me that here, they felt that it was here they could truly relax because everyone understood what they were going through. The primary gender difference I found in dealing with the patients, was that of self care. Female patients would arrive to the gait clinic, made up, with their hair done, and clean clothing, whilst the men had, often as not, not shaved, nor brushed their hair, and one memorably turned up in a pair of bright orange pyjamas one morning, having also forgotten the correct shoe[82].

The amputated body has the power to disrupt, or at least challenge the normative boundaries of the body, and thus social relationships surrounding it. The prosthetic body takes this power, and channels it into the rehabilitation of social order. By doing so, the prosthetic body becomes concerned with control and discipline, and the art of governing the body and technologies of the self; both over aspects of body contingency and over aspects of social life (Foucault 2006 [1991], Frank 1995). Within the Bela Clinic, issues of contingency and predictability were of paramount concern to the amputees. How will the new limb work? Will it hurt? How will they sit? Stand? Will they be able to put it on themselves? Will they be able to balance? The implicit trust that a wearer must have in their prosthesis' ability to hold them upright is mediated by their experience in the prosthetic clinic and their previous life experience, akin to the creating of a new 'habitus' of movement (Bourdieu 1977, 1984). Interviews that I conducted with patients who had yet to receive their prosthesis revealed that fear was paramount in their minds:

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[82] The majority of the patients were unilateral amputees, and their prosthetic limb had its shoe already attached. A matching one was a necessity for the process of alignment.

fear of falling and injuring themselves[83], fear of not being able to wield their prosthesis, fear of not being able to go home, fear *of* going home, fear of losing independence, fear of becoming a financial and social burden on their families, about getting a benefit, returning to work, whether their partner would find them desirable, how they would go to the toilet, whether they could drive a car, where they would live, how they would live, or if they would be a burden on their families, to name but a few.

The history of prostheses is irrevocably bound to the history of conflict, and the wounding of bodies through injury. The prosthetic body to this end is also gendered, and has at its core the re-imagination of the injured veteran body, where other types of body require deviations from this norm as well. Large scale prosthetic rehabilitation as originally imagined post World War One, is very much about the aesthetic of the masculine body. Within the industries that have grown up surrounding amputation, doctors, patients, therapists, manufacturers, and prostheses themselves are all engaged in a network of creation and meaning. By this I mean that they are inscribing meaning both onto the body and through the body, through its relationship with the prosthesis. It is interesting to me that the term Nikolina used earlier, 'compensation,' seems to refer primarily to a viewer outside of the body. That being said, I would argue that this 'viewer' is simultaneously both the self and the observers with whom social interactions take place. Julie Livingston's recent work into disgust, body aesthetics and human ethics (2008) has been useful as a comparative study in this regard. Writing about physical disability in Botswana, Livingston looks at how people simultaneously experience disgust *and* love, or compassion *and* revulsion, in their interactions with the physically disabled, and how positive qualities of people are brought forward through 'the taming of unruly bodily sensations' (ibid: 288).

Amputees form relationships with both people (surgeons, prosthetists, therapists, their church, their communities and the like) and technical agents (prostheses, orthoses, and aids). They also form relationships with parts of their bodies that no longer physically

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[83] Kurzman (2002) also finds this among elderly patients at his prosthetics clinic

exist: phantom limbs. A phantom limb is simply and perhaps most easily described as the continued sensation of a body part, after it has been amputated. Most people have heard of this phenomenon through its association with the presence of pain in the previously amputated area. Phantoms are, to that end, routinely quantified and pathologised through measurements of Phantom Limb Pain (PLP). However, many amputees, including those I interviewed, experience their phantom limbs as more or less ever present, and describe that their 'phantoms' are only an issue when painful (Kurzman 2002). In fact many of the amputees that I worked with described that these painful problematic 'phantoms' were only a problem when the body was at rest. When put to work through the prosthesis, phantom limbs were in fact useful through their presence as a memory of the flesh.

For many amputees, phantoms are managed through body techniques that make the phantom work through the prosthesis (Sobchack 1995). There is neurological evidence to suggest that without the use of a prosthesis, the physical presence of a phantom limb becomes less clearly defined (Doidge 2010, Sacks 2010). Without the prosthesis to give it form, it becomes increasingly abstract until it actually seems to be within the residual limb. The presence of pain in this limb however, brings the boundaries sharply back into focus, allowing the limb to 'dys-appear' (Leder 1990) in all its wrongness. This shortening and lengthening of the limb relative to pain is called telescoping. The dimensions and functioning of the physical and neurological body therefore change through the body's articulation with a prosthetic device, which is incorporated by the body that relies on it (Grosz 1994). Leder (1990) argues that our bodies only really

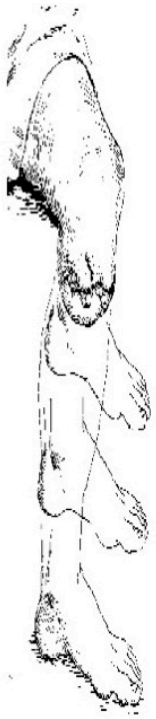

fig 14: 'telescoping of a prosthetic limb over time' from *pain after amputation - a lifelong problem?* (Sherman 1997)

appear to us in times of illness or injury, so that in essence they ‘dys-appear’. The rest of the time we simply take them for granted, not noticing their literal or figurative limitations. Prostheses then allow phantom limbs to appear, rather than dys-appear, and furthermore allow these limbs to be re-incorporated into the user’s body.

The prosthesis re-members the body again, literally and figuratively. It conceals the interface of flesh and machine, and imagines a whole. When fitted properly and perfectly aligned to the body, it disappears as a prosthetic add-on, and in its place, the phantom limb is allowed to reappear. Much is at stake however, and a number of different types of phantom limb pain have actually been attributed to badly fitted or designed prostheses (Sherman 1997). None the less, if pain and suffering destroy language, and unmake the embodied world (Scarry 1985, Frank 1995, 1999), then prostheses surely allow the creation of a dialogue, the opening up of language, and a remaking of the world, a rehabilitation of not only the biological but also the experiential, allowing for constant renegotiation of borders and boundaries, as the interface of machine and body changes with time and technology.

Simply put, the prosthesis disguises where the organic ends and the mechanical begins. It is, as Davor put it, something to fill the empty sleeve. However, it is more than just this. More interesting is the way in which the prosthesis becomes a space where the psychological and the biological body can be negotiated. If this is confusing, then think of the prosthesis as the empty sleeve, and the ‘phantom’ as the limb that fills it. The mechanical brings the ghost of the biological back to life. Experiences of phantom body parts show us that we are all caught up in the need to create a coherent belief system surrounding the body and that what we call our ‘self’ is not necessarily located within the flesh. Phantoms ask questions of how it is that we come to perceive the world, and of whether we can root ideas of seeing and knowing in the corporeal body.

The space of the prosthetic is where biomechanical, phenomenological, and technological world views are played out vis a vis the human body. Where a *habitus* of

movement is reconstituted and the body is reassembled. This is where a generic and marketable prosthesis (consumable fetishised movement), which was (and in some ways remains) identical to hundreds of other limbs, becomes thoroughly customised to the needs of the wearer. It becomes a specific prosthesis for a specific patient, and the aesthetics of this relationship are coded and 'read' in ways that are unable to be separated from their socio-political and historic contexts. Technology, that great blurrer of boundaries, is in reality never quite as infinite as it appears. Thus it is that I turn to cyborgs, who have been hovering as it were at the edges of this text since its inception.

Complications in Cyberia

Critical Cyborgs

A cyborg is cybernetic organism, a hybrid of machine and organism. A creature of social reality as well as a creature of fiction (Haraway 1985: p149)

Cyborg /ˈsīˌbôrg/

a fictional or hypothetical person (sic) whose physical abilities are extended beyond normal limitations by mechanical elements built into the body

It is more than two decades since Donna Haraway published 'A Cyborg Manifesto', a text in which she drew from Marxist feminism to develop a form of postmodern feminist critique of person/object relationship. This sought to collapse dualist notions of nature, culture, gender, objects and subjects, which Haraway perceived as artificial in nature. While I have no issue with the latter of these statements, as I hope to show in this last section, the increasing use of cyborgs, to stand in for all human and technology relationships, runs a risk of becoming a victim of its own success. Across the social sciences, cyborgs, much like the terms prosthesis and prosthetic, have become a catchall phrase. They are however, not synonymous with each other, though neither are they mutually exclusive.

The concepts that Haraway was rallying against had all been touched upon previously, but in naming them, Haraway acknowledged their strangeness, and gave them a fertile academic space in which to grow. Since 1985 these cyborgs have replicated, so to speak. Permeated throughout the fields of Science and Technology Studies, and Gender Studies, a field of cyborg anthropology has evolved, dedicated ever more myopically to this study of the boundaries between naturalised categories we so often take for granted - animal/human, flesh/machine - these fleshy endings of the body shaken out

until they give up their secrets, most potent of which are perhaps that (as Haraway was hammering home) we are not as finite as we imagine ourselves to be.

Contemporary and complementary to the cybernetic turn in anthropology, came the focus on 'the body' as a theoretical tool for understanding the world. In 1987, Scheper-Hughes and Lock put forth *The Mindful Body: a Prolegemon to Future Work* in medical anthropology within which they note three theoretical bodies that we all inhabit. At the first and most fundamental level is the phenomenological experiential sense of the individual lived body. The second comprises the social body, referring perhaps most strongly to Mary Douglas' ideas of the body as a symbol of culture, society and nature that can be read, during both health and illness (1966). At the third level, drawing heavily on the works of Michel Foucault (1973, 1978, 1979), they posit a body politic, referring to the ways that bodies are controlled, regulated and surveyed at all levels of governance. Though they note that there are many areas of social life where these three coalesce, Scheper-Hughes and Lock conclude that

> the individual body should be seen as the most immediate, the proximate terrain where social truths and social contradictions are played out, as well as a locus of personal and social resistance, creativity, and struggle' (ibid: 221).

Cementing the domain of the individual body as a tool for anthropology even further, Thomas Csordas' 1988[84] essay on embodiment as a paradigm for anthropology heralded a new era in phenomenological approaches to the body. Csordas rooted the body as the 'existential ground of culture' placing the body at the centre of all experience. Departing from Mauss (who he noted reproduces the very Cartesian dualism he sought to collapse, by producing the concepts of *la notion du personne* and *les techniques du corps* separately (Csordas 1990: 7)) and building on again on Merleau-Ponty and the works of Bourdieu, he put forth an argument for using the body as the starting tool for analysing culture and the self through perception and practice. Such an approach, he surmised,

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[84] Published in volume 18 of the journal 'Ethos'

would collapse distinction not only between mind and body, but between subject and object 'allowing for an investigation of how cultural objects (including selves) are constituted or objectified … in the ongoing indeterminacy and flux of adult cultural life' (Csordas 1990: 40).

What was groundbreaking to many in 1985 has grown out of its skin in 2012. Cyborgs after all, are the ultimate rule breakers, they are always located in the present/future. As technologies that were once *avant garde* and unsettling become a part of the vernacular meshwork of life, so new ones arise to take their place. We are always looking for new ways to describe our relationships to new technologies, and thus to each other. The cyborg is always associated with a move toward the future, which masks rather than engages with history, while the prosthesis and thus the prosthetic citizen are located more firmly in the present, rooted through action to a particular time and place. That is not to say that there is no overlap between the two, but I would argue, just as Kurzman (2001, 2002) does, that not only do cyborgs obscure relationships and networks, but that due to the location of the cyborg within the future/present, cyborgs also obscure notions of historicity and time; concepts vital to understanding how a particular type of 'normal life' is produced and replicated through the production of particular types of citizens.

Cyborgs and embodiment, or technology and bodies to be slightly less opaque about it. These are also the realms of the prosthetic. The larger macro processes of international and national level politics played out on the field of the body, inscribing and marking it in the process. Little wonder that 'the prosthetic' has been fruitful ground for metaphor for those anthropologists who wish to articulate the techno-dazzle of the future/present. However, given the central position of ethnographic description to anthropological thought, it is perhaps more surprising though, that there has been only a spattering of recent research dedicated even in part to grounded ethnographic studies of 'prosthetic' ways of being.

I was very interested in cyborgs when I started writing up my field notes on prosthesis advertising, as it seemed to me that the marketing of limbs encouraged people to imagine themselves as cyborgs, a literal fusion of machine and flesh. However I rapidly discovered that cyborg studies were not the territory in which my research belonged. They bore strikingly little resemblance to my experience in Serbia, and the experiences of the people with whom I worked. In the cyborg future present it sometimes appears as though people are imagined as totally unconstrained, insofar as they are not people at all, they alter their bodies in sterile labs, they replicate asexually, they extend their ears and mouths through cell phones, their new limbs are computer designed and aligned. In the clean, civilised, technical laboratory, there is no need for human error. There are no non-compliant patients, sneaking into one another's rooms to smoke, eat *cvarci* and drink *rakija*; there are no harangued therapists with 15 simultaneous patients each, no prosthetists with gambling debts toppling into black holes of despair, no directors who fall down stairs and break limbs, no lack of funding in the state health systems, no triaging of who will receive better healthcare from an already overstretched pool of works. No distinctions in forms of life; human and non human and non-non human are all equal. The really real, the messy, leaky, morally ambiguous, slovenly, hopeful matters of daily life, and the meshwork in which we all exist are conspicuously absent. In the hunt for the near future, the cyborg lifts us from contextually embedded matters of the flesh, to a plane where everything is possible. In fact, in her flagship cyborg manifesto, Haraway has strikingly little to say on the subject of disability - or of anything that I have come to recognise as prosthetising. She notes only that

> perhaps paraplegics and other severely handicapped people can (and sometimes do) have the most intense complex hybridisation with other communication devices (Haraway 1985: 178).

It seems such a contrite and patronising sentence, in what otherwise appears as a convincing and complex argument, that we are all in some way cyborgs. Many of the patients of the Bela clinic would I feel, be as hard pressed to consider themselves severely handicapped, just as they would be hard pressed to 'perhaps' consider

themselves enhanced beyond nature. Haraway's cyborgs are the stuff of fantasy, her's is a future of clean, glittering technology, of postmodern eclecticism, devoid of the need for choice, because one can be everything at once, both human, and non human, and non non-human. It is a future of desire. Disability does not figure here. In this future, the disabled are worthy only of a side note, a grudging acknowledgement that 'perhaps' they are capable of the a 'more intense' form of machine/human communication. What, if anything, is more intense about it? Are not all our interactions with prosthetic structures, be they communicative, ambulatory, or bureaucratic in nature, complex and intense? Haraway too then, despite all appearances of boundary collapse, regresses too, via an excludable category, to a kind of naturally incomplete disabled form in need of hybridisation.

Cyborgs and Prostheses: revealing relationships

Cyborg anthropology is therefore a fair weather friend to amputees, exclusively the domain of those involved in the latest research, in nerve cell transfer programs, in learning to move limbs with their minds. I get as excited by these breakthroughs as anyone. These breakthroughs however, happen primarily within the bubble of 'cyberia', a middle-class, western, technological future/present. The amputees involved are mainly young, healthy, often military veterans, and each time I read about a new limb technology connected to cybernetics, I hear the grouchy voice of Kurzman (2001) in my head. Kurzman too takes issue with the over ubiquitous nature of the term cyborg, which masks underlying networks and relations. Far from being a cyborg simply because of his prosthetic leg, if he is to occupy such a position than it is, as he states, because

> my leg cost $11,000 and my HMO paid for it; because I had to get a job to get the health insurance; because I stand and walk with the irony that the materials and design of my leg are based on the same military technology that has blown the limbs off so many other young men; because the shock absorber in my foot was manufactured by a company which makes shock absorbers for bicycles and motorcycles, and can be read as a product of increasingly engineered sports equipment and

> prostheses; and because the man who built my leg struggles to hold onto his small business in a field rapidly becoming vertically integrated and corporatized (Kurzman 2001: 382).

One becomes a cyborg though the networking of these diverse technologies that are incorporated in the prosthetic structures that support us, rather than by way of these technologies alone. Thus while one might initially think that the cyborg is the most appropriate way of thinking about human-prosthesis relationships, the weakness of the cyborg is its focus on the cyberdazzle of the new technologies. When one removes the new and unfamiliar from the technological relationship that exists, what happens?

The patients who I interviewed did not see themselves as sexed up cyborgs. Far from it, through their sessions in gait and manual therapy they hoped for something approaching normal, something within the range of tolerable difference, and many knew already that they were doomed to fall short. These were patients with a paucity of resources and choices available. Even at the opposite end of the economic scale, and despite many claims of unsportsmanlike enhancement off the field, I have yet to hear of anyone taking up Pistorius on his offer to 'meet at the track[85]'.

The Cheetah® running prostheses that both Pistorius and Amiee Mullins (among many hundreds of other amputee runners) use, question the normative form of the human

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[85] see page 9

body. The Cheetah® leg looks beyond the human body for its inspiration, and is composed of a moulded carbon fibre blade, earning Pistorius his now famous 'blade-runner' eponym[86]. As its name suggests, the limb both looks like and replicates the tensile strength of the tendon in the hind leg of a cheetah. It looks nothing like a biological human leg, has no external moulding and is not worn with a shoe (Kurzman 2002, Gutfleisch 2003) although many athletes actually glue the spiked soles of track shoes to the impact points of their limbs. Marketed by Icelandic prosthetics company Össur, the cheetah® is publicly declared not to be a 'bionic limb' capable of delivering proprioceptory feedback and assisted movement, like the Ottobock C-leg©, but is rather described as 'a non-mechanised prosthetic running foot, which returns a portion of the energy stored during the loading phase of running[87]'.

Furthermore, its shortcomings are detailed

> Studies have shown that the Flex-Foot Cheetah can return around 90% of the energy stored in it. This is far less than a normal able-bodied foot and leg, which has been shown to return 249% of the stored energy[88].

The disruptive quality of prostheses is clear here. Össur is interested in outlining the limits of the limb's capabilities. I would like to suggest that because Cheetahs® push the range of tolerable difference aesthetically, and yet not athletically, they rub uncomfortably with unquestioned ideas of normalcy, of the 'naturality' of the biological body, and of debates into enhancement versus disability. When does a limb stop being an assistive device and start being a cosmetic one? How are extreme limbs different from cosmetic prostheses? Who decides what 'natural' levels of performance are? Has such a

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[86] This is also a nod to science fiction, like so many descriptions of cyborgs in the media, in this case to the 1982 film of the same name, in which rogue and morally ambiguous androids are revealed to be hiding among biological weapons, a work itself based upon the 1968 Phillip K. Dick science fiction classic 'Do Androids Dream of Electric Sheep?'.

[87] www.ossur.com/?PageID=13462.

[88] accessed February 17, 2012

category ever existed? How is a prosthesis different to a pair of high tech running shoes? Debates continue to rage across the internet about the whether 'disabled' athletics are really 'enhanced', and Pistorius seems to herald a new generation of so called 'super-crips' (Howe 2011). Despite being deemed finally to not have a 'net' advantage over his naturally bipedal competitors, and despite having run with the same pair of limbs for the last 10 years (his are not the latest models), and even though his speed has continually and incrementally increased, suggesting that no small amount of learned skill is involved, Pistorius still seems to divide opinion. Let's not forget as well that Cheetahs® are debilitatingly expensive: by all accounts, they cost between US $15000 and $28000 each.[89] They are therefore not available to everyone, only the financial elite of a small group of athletes previously believed to be at a disadvantage, excludable by way of physical anomaly. The furore around their usage on the athletics field begs yet again the question of when it is that restoration becomes enhancement.

In her typical insightful style, Lock (1993, 2000) writes that arguments about deficiency are really moral disputes about the boundaries of abnormality. I would also argue that they show how proclamations of the seamless articulations among humans and machines, a concept required for the construction of the post-human autonomous subject (Hayles 1999), do not stand up to rigorous appraisal. It is precisely along these seams that subjects are made and unmade: Individuals within supporting structures that have the capacity to validate their claims for citizenship or to negate them, based on the oppositional claims of others. This is no more clearly portrayed to the general public during the televised sporting arena of the paralympics. Athletes in the paralympics compete against each other inside an official sports class, which is based on the classificatory status of their disability for each particular event.

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[89] Paralympic does not include the price on their website, so this is gleaned solely from a broad web search across resources for athletes, where limb prices vary considerably. Moore and Rieg (2005) ADD TO BIBLIOGRAPHY state figures that are considerably higher.

There is no exact science here however, and each individual is assessed according to a number of disparate formulae (Howe 2011)[90]. Most of what is consumed via media coverage are distinctive bodily differences, and much of the politics of physical classification in the paralympics is ultimately not far removed from Titchkovsky's excludable categories of inclusion mentioned previously[91] I would like to suggest however that it is not classificatory slippages from *within* the Paralympic populations that trouble the *vox populi*, it is the leaking of this previously excludable 'normal' disabled body into the realm of the aesthetically 'normal'. We might be okay with the knowledge that no two disabilities are completely alike, but then why are we so concerned with able bodies being identical? That like should compete against like, in the interests of 'fair and equal competition' (IPC 2007) is one of the founding principles of the paralympics, and indeed could be considered a primary ground of all sportsmanship. Ambiguity is frowned upon, primarily because it means that this guiding principle cannot be established[92]. Furthermore it is again at the boundaries of the limits of 'normalcy' that this is most apparent. Note that there is no discussion whether wheelchair athletes should be allowed to compete against their able bodied counterparts.[93]

Perhaps then, more than anything, athletics shows us most clearly that prosthetising citizens is about taming; whether it is taming the unruly aesthetic or kinaesthetic of an unusual body shape; constraining infinite cyborgian epistemological possibilities into something real, practical and culturally embedded; or bounding messy national

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[90] See the IPC classification code published in 2007 and available on www.paralympic.org for further information.

[91] see page 92

[92] Consider, in addition to Pistorius, the case his fellow South African runner, Mokgadi 'Caster' Semenya, who was subjected to a intrusive public investigation by the International Association of Athtetics Federations (the IAAF) into her 'true' gender, based upon 'abnormal' competition results in the upper limits of what a female might be assumed to achieve.

[93] Currently the paralympic 800m wheelchair record outclasses the able-bodied one, at 1:32.17 to 1:41.11[7](Howe 2011). Rules for wheelchair racing however allow athletes to 'draft' air turbulence from one another, making the event much more akin to a cycle race.

hybridities and contested spaces within geographic borders. Prosthetising takes the abstract cyborg, and reforms it into the concrete and defined.

Once one accepts that the cyborg is (like the universal norm) unattainable, the theoretical stance of it becomes *in principle* only useful for establishing an *ideal* of prosthetic citizenship, and, as Haraway wrote originally, to express the conflict between mass production and personal experience:

> the production of universal, totalising theory is a major mistake that misses most of reality, probably always, but certainly now; and second, taking responsibility for the social relations of science and technology means refusing an anti-science metaphysics, a demonology of technology, and so means embracing the skilful task of reconstructing the boundaries of daily life, in partial connection with others, in communication with all of our parts (Haraway 1985: 181).

This original insightful tenet of Haraway's seems to have fallen much to the wayside where cyborg anthropology is concerned. How though might we go about talking about human-prosthetic relationships without the rubric of the cyborg to anchor us? Having scrutinised cyborgs, and found them wanting, where do they fit in the scheme of things, and what is their relationship to the prosthetic citizen? For the amputees of the Bela Clinic, the universal near future always meets the individual physically present at the interface of flesh and machine. The universal is consumed, marketed, desired, and bought ó by way of generic components, but it is the latter that is produced; a cyborg in-situ, the prosthetic citizen ó the specific cobbling together of these components.

During the conflicts that marked the end of the century, Serbia, like many of its neighbouring countries, received many used prostheses as aid. Well-intentioned gifts nonetheless went on to cause unforeseen problems as parts broke down, pieces needed replacing, and orders had to be placed. Many of these parts could not be sourced from within Serbia, and while the country remained under economic sanctions many

prosthetists learned to make do and mend what were originally high quality, though dated prostheses, with local components. Conversely, with the opening of the borders and the flooding of the market with Ottobock products, many of these prosthetists were now limited to working solely with branded components that they encountered in the course of their sponsored training seminars.

I wrote previously that in much the same way Perry's historical research into post World War Two Germany described men becoming prosthetic to the machines that they were attached to[94], the Ottobock marketing videos described in on page 41 made me feel as though some of the prosthetists were afraid of becoming a supplementary support: human prostheses to a self serving machine of progress, and that Ottobock's C-legs were advertised as almost able to 'walk by themselves'. In both these cases there appears at first to be a renegotiation of a power flow, the biological giving way to the biotechnological - however, ultimately, neither L.A.S.A.R[95]. alignment systems from Ottobock, nor prosthetic legs are of value without a body to attach them to. New ways of talking about things do not necessarily mean the destruction of older forms. Machines might take the 'guesswork' out of alignment, but what is construed as 'guesswork' is actually the skilled labour of the prosthetist, and the work of the patient. Much as we can theorise the post-human, its very existence presupposes that there is (or was) a 'natural' category which the 'post' can fall outside of. The prosthetic in many ways reinforces this, as one cannot augment something that no longer exists.

The amputees who I interviewed often had many other worries in their lives, which vastly trumped their concern over body aesthetics: health, financial, social, psychological, emotional, relationship type worries. For many, thinking about their prosthesis as something more than an everyday tool that allowed them to stand and

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[94] see page 34

[95] Laser Assisted Static Alignment Reference

move about, or stopped people from staring at them, seemed a ridiculous endeavour, one that they often turned their noses up at, making me wonder to what extent the cyborg might speak to a particular western notion of the future and fears of body contingency. The prosthetic body after all, predates our late twentieth century notions of the cyborg. People have always existed with unusual anatomies, just as technologies have always supplemented and augmented bodies in different ways, across a range of culturally defined ranges of acceptable bodily difference.

Perhaps if one considers that the emerging 'cyborg' imagination of endless desirable body transformations is really about a particular mode of capitalist consumption, then we can begin to distinguish prosthetic citizens from cyborgs. Hybridity, cyborgs, and bionic people might all in some way be prosthetic citizens, but the inverse is not necessarily the case, at least not for the reasons that might first appear explicit. The marketing of assistive devices is already morally ambiguous, relative to questions relating to restoration or enhancement. What an appropriate level of restoration and rehabilitation is, varies from country to country, from class to class, from generation to generation. Take for example the silicon breast. It is the site of much contention, whether it be the restoration of breast tissue following a mastectomy, or the silicone implants of woman who chooses to augment her biological breasts, how one comes to wear a prosthetic breast has implications for the financial support one receives from the government, relating to the number as nature of prostheses, how often they can be renewed, of specially designed underwear, even of emotional support.

There is always a grey area of definition between restoration, rehabilitation and enhancement. This is the space where considerations of individual ability versus biological ability are raised. Particularly when large sums of money are invested, the assumption is that if one has the economic and/or social (or *veze*) capital, all options are available for consumption. Parts of the body become ever more replaceable and need and desire become blurred. How many pairs of prosthetic legs, or how many wheelchairs does an amputee or a paralympian 'need'? How do we define this loaded term? Mullins

recently complained that she had to maintain 12 pairs of legs as part of her 'normal' work and social life (2009).

One form of consumption leads on to another, and this consumption becomes an endless quest to come closer to an ideal or universal citizen, so the making of the prosthetic citizen is, in this instance, really the closing in of the unbounded possibilities of the post-human and the embedding of a 'potential' individual within the feasible realms of daily life; a precarious and individually prioritised network. In this prosthetising of the self, desires are tempered by realities, futures by presents, the ideal by the real. The prosthetic citizen is the cyborg bought to order within social and cultural limits of normality.

Placing cyborgs under a critical spotlight also reveals where prostheses transect the boundaries of enhancement, hybridity and disability, focusing our gaze at the 'taken for granted':

> As a culture, we have only begun to grapple with the myriad ways that disability shifts our expectations and creates alternatives to that which we regard as 'natural' or, even worse,'normal' (Mitchell and Snyder 2000: xiii).

Having worked with amputees and prosthetists for 18 months, and having researched the place of prostheses in academic discourse, I feel that I can safely say that cyborg culture and prostheses are not interchangeable, although there are many areas of life where they can be seen to overlap. Mullins' legs do not ultimately extend the capabilities of her legs anymore than a pair of running shoes do for me. They certainly do not allow her to run at the speed of light, or even beyond the realm of what is biologically possible. They may allow her to alter her height, but each centimetre upwards means more effort spent on balance. Each 'enhancement' has its disruption. Indeed medical prostheses, rather than surpassing the boundaries of the body, attempt as best they can to give wearers access to 'normal' activities in life. Running, walking, driving a car, kicking a ball, swimming, holding a knife, a pen, a glass. These are not the desirable sexed up activity

of a cyborg. To say that Mullins' legs are in some way like a mobile phone (as Case implies in 2009), extending her legs into an abstract space is to me ill thought out.

Cyborg anthropology takes human - non-human relationships as unproblematic, and as universally equal. When cyborg enthusiasts talk about the history of prosthetic modifications to the body, they cite tools, glasses, pens, and while I agree that these do further the limits of the body, allowing parts of ourselves to be expressed beyond the limit of physical body, it seems more than a little facetious to call someone a body-pen hybrid, or a contact-lens person hybrid. Prostheses, whether structural, physical or literary are always trying to ease communication, to contain and control the unruly external limits of the body, whether attempting mimicry of those minutiae of muscular, skeletal, neurological and physiological details that exist within the structure of our bodies, or trying to direct and legitimate the networks flowing from them. Ask any amputee about wearing their prosthesis. It is difficult work. There is no 'adaption for a the purposes of a *new* environment'[96] as Clynes and Kline (1960) posit in the their original text on cyborgs. Even the Cheetah® and the bionic C-legs' impressive 'muscular' response systems pale in comparison to a biological leg.

Increasingly, scholars involved in studies of cyborgs talk about a 'modern life' where we, *more than ever before*, are defined by our relationships with non-human objects, for as Haraway has claimed, we are all cyborgs now. To me this seems tinged with more than a smattering of self importance. Were we to ask scholars of any given decade, would they not answer the same, that modern life proceeds at a faster speed than that of the generation before? That new technologies have meant that tasks can be accomplished faster and with more precision? Jain (1999) argues that technology is really the speeding up of time. Each generation defines itself as the most modern, because, chronologically speaking, it is (Latour 1993) We imagine that new technologies supersede older ones, though the reality is not always so clear cut. We have always been prosthetic citizens, but are we always cyborgs because of it?

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[96] My emphasis.

Stigmatising Technology

As cyborgs (and researchers writing about them) are to be found wherever new technologies are located, it is possible to identify an increasingly large area of interest in cyborg studies from within the computer gaming and virtual reality universe. Here avatars (representations of individuals with cybernetic worlds) represent the ultimate virtual cyborg. As the internet becomes more accessible to a growing number of people in the western world, so we also see a rise in cyborg studies of virtual prostheses.

These are the worlds of online gaming, *second life* communities, and involve an increasing interaction with cyberspace, mediated through what authors called 'virtual cyborg bodies' (Cleland 2010). Avatars are visual representations of individuals, who interact with one another in digital environments created to resemble some form of solid physical surroundings. Cleland suggests that these

> Prosthetic technical extensions enable us to amplify and extend ourselves in ways that profoundly affect the nature and scale of human communication and, therefore, of human consciousness and subjectivity (ibid.: 75).

This is indeed a grandiose statement to make. These cyborg theorists seem to feel that we, as humans are no longer limited by our physical selves, and can (in this case) be liberated from our bodies through the creation of new 'selves' which project the essence of ourselves out into a new public area. However, it is an incomplete transition, because the mundane and boring fact is that we must still deal with the matter of our own continuing corporeality. Much as one might wish to reinvent oneself in the digital realm, we still have to buy food, eat, to digest and defecate, and to work (or be compensated for this) to pay for power and internet networks that allow us to link in to online communities. In all these cases, throughout literature and my fieldwork it is always technology itself that is the implicit prosthesis that we all use to support and prop up *our physical* selves.

Cerqui (2002) notes among his engineers that one may consider what is to be human from two points of view. From the first vantage point, one may consider that the body in its natural form, whatever that may be, is already complete, and that while we are physically unspecified (there are many animals and plants containing technologies and skills greater than our own - the cheetah for example is a better runner, the crab a better pincher, the ant able to lift proportionally greater loads, the whale able to hear for kilometres underwater), our specific evolutionary skill is found in the specificity of our brains, which allow us a greater level of thought, and means that we can conceive of technologies to make use of all these skills, externalising our bodies and creating prosthetic assemblages to our own advantage. Alternatively from another vantage point, one may consider that all of us are disabled in some way, due to the indeterminate nature of our bodies, so that technologies are required to improve our physical forms, making them more robust, less fallible, less prone to the illnesses and diseases that ail us, and to early death, to which we must all eventually succumb. Thus, for Cerqui, the difference between these two views, also leads to the difference in moral positioning over technologies of restoration versus enhancement (2002). Cerqui further notes that among the engineers involved in the research and development of transplant and implantation technologies, the latter view (which considers that humankind [sic] is in need of improvement) is the dominant one (2002).

Cerqui concludes by considering whether there are limits to the plasticity and malleability of the human body, wondering if so called intelligent neural and mechanical implants will be able to internalise prostheses, so that we are no longer ‘externalising’ or extending ourselves outward, rather, our bodies might simply become housings for our endlessly networked and social minds. Throughout the duration of this dissertation, what has struck me constantly is precisely that the limitations of body plasticity are much more commonplace and mundane than this philosophical conception. The limits of the body are defined by the conditions in which individuals find themselves and the framing of the body. For example the ‘eyes’ of a blind individual (expanding upon Merleau-Ponty’s original 1962 example) may be any or all of the following; a physical artificial

cosmetic eye, a sensory prosthesis attached to the tongue, the tip of a cane, the tip of one's fingers, a 'seeing-eye' dog, a relative, a shopping assistant in a supermarket, benefits that pay for home help if required, the audible text function of a computer, speak-to-text telephone services, or any combination of these categories, or others. A distributed agency approach to individuals allows us to see how the limits of the body are also the limits of prosthetic citizenship. If we consider the individual as a central node in a flexible network of structuring prosthetic elements, perhaps this will become clearer, as, in the above example, some of these elements are more pivotal, depending on the desires of the individual for what kind of citizen they wish to be, the desires or limits of the state for creating particular kinds of citizen, and what practical options are available for consumption. The government for example may provide funds for a service dog, but the living conditions of the individual may prove a deterrent, the cosmetic eye may rub uncomfortably, the relatives may be unreliable, relationships between countries or markets may limit the flow of goods. Individuals are never bounded units, rather body plasticity may be considered to be a consequence of citizenship plasticity - as the ability to affect action, in much the same way that we have considered desires for normalcy in citizenship.

A cyborg anthropology database exists as an open source on the internet, and in December 2011 I watched a young anthropologist named Amber Case via a link on the global video user generated file sharing site *youtube*. Case is a self proclaimed cyborg anthropologist, writing about *our* prosthetic culture. The clip that I watched was an introduction to cyborg and prosthetic anthropology, which as we enter an ever more technological age is becoming increasingly popular. The lecture that Case gave started with a photo of Aimee Mullins, double amputee darling of prosthetic culture studies[97]. Case opens her lecture by noting that prosthetics extend the capabilities of our bodies.

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[97] Mullins herself, perhaps tired of being deconstructed, re-constructed, decoded and demystified by a great variety of fields, feminists, fashionistas, filmmakers, disability scholars, media studies, prosthetics, sports scientists, you name it, has for better or worse become a symbol of the cyborg female, and embraced the enhancement of her body fully, via a series of TED talks available open source on the internet at www.ted.com/speakers/aimee_mullins.html

She cites Mullins' legs first, then moves on to note how cell phones extend the capabilities of our hands (our ears as well if we are going to be picky), and how computers extend our personalities into cyberspace.

Cyborg studies do not often take into account the production of social norms and the consequences of deviation from them, assuming instead that enhancement is always desirable. Also, cyborgs are, as mentioned previously, morally ambiguous, due to their location of the crux of relationships between technological values of rationality, clinical precision and enhancement, and human values of emotionality, sociality, and desires for 'normalcy'.

Even though it has not been an explicit focus in my PhD, in understanding these desires for normalcy, I feel that an old, although still relevant source can be used to counter some of the hype surrounding cyborgs. I hope that Goffman's (1959, 1963) theories of self presentation and social stigma shall help us to synthesise how it is that cyborgs, prosthetics, the Serbian context and the production of normalcy are entangled.

Cutting through the techno-dazzle that surrounds cyborgs is important, as, in a self perpetuating industry, the choice to question the application of new technologies that are offered to us 'for our own good' becomes rapidly a choice about looking *toward* the future, or against it. Zoran, the young patient whose story I described on page 123, was regularly irritated at the insinuation by Bela clinic staff that he was 'stupid' to not trade his limb in for a newer model, which he argued, worked perfectly fine for him.

The neutralisation of stigma and admission to what Goffman refers to as normal life, after all, plays an important implicit part in the production and usage of both physical and technological prostheses, and of prosthetic citizenships. This is something that Nikolina also makes references to when, during our discussion over what a prosthesis is able to achieve, she describes the prosthesis as compensation for the 'negative image'

that an able bodied person may have upon seeing an amputation for the first time[98]. Even while post (or trans) -human theorists are proclaiming the ways in which we can become enhanced or exceed the human condition, we seem to bypass the issue that the vast majority of these technologies are implemented to augment something that hinders us in some way. In much the same way that we have expanded on the term prosthesis, the ways in which *not* engaging with technology are disabling involves a renegotiation of our relationship with technology and time.

Goffman's first text on social stigma was published in 1959. While it has remained a seminal text within sociological and anthropological circles, it is his 1963 volume that we shall turn to. Goffman's works have born the passage of time admirably, and even many of the criticisms that that have been levelled at him concern language semantics, his seeming naivety toward our current social norms (his understandings of gender, ethnicity, and sexual orientation, for example, appear all too dated). It is all to easy to forget that our currently held views were not developed until later in the twentieth century. In this sense we hold Goffman to an unrealisable standard. That is, to step out of his own time and cultural context. Nonetheless his work helps us to disentangle our cyborgs.

Goffman breaks stigma into three forms:

1. physical deformities, or departures from an acceptable societal body
2. deformations of personal character
3. ethnic, national or religious traits, which deviate from a prevailing majority

As our lives become ever more biomedicalised, and health becomes increasingly international in nature, these three forms become ever more self referential, so that deformations of character are seen as causative, instrumental in the creation of socially deviant physical bodies, with conditions such as obesity, heart disease and diabetes caused by poor diet, lack of exercise, or even worse, exacerbated by 'traditional' forms of health seeking (or non-seeking) behaviours. In return physical deformations are often

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[98] see page 129

perceived as indicating a range of other deformations of character, amputation leading to depression for example.

Goffman also breaks stigmatised relationships between individuals into three groups

1 The stigmatised	those who signify a particular deviancy
2 The Normals	those who do not bear the sign
3 The wise	those who are themselves in the normal category, but have a special understanding of the conditions of the stigma born by a particular group

He posits that, as stigma is evidenced in relationships between any individual and their social setting, at any given time each of us will belong simultaneously to all of these three groups, depending on the nature of the characteristic that we are observing stigmatising deviations from, and studies utilising and expanding upon his ideas continue to hold sway among academics today.

Stigma can be found in my research in two main areas, first, among the kind of patients who are admitted to the Bela clinic, who are more likely to come from marginalised areas, or poorer, more rural areas of Serbia, and more likely to enter the health system in an advanced state of illness, having delayed seeking help until absolutely necessary. Their access to resources is poorer, they have less choice of prostheses, and for many, who are either retired and/or informal agricultural workers, working their land requires periods of hard physical labour, whereas the medical and administrative staff in the Bela clinic were largely middle class, urban and educated. Remembering Buchowski's reframing of peasant heroes as peoples not suitable for modern societies[99], and the dismissal of the urban elite as corrupted by city life, there exists the strong possibility of stigmatised relationships between the two. Workplaces themselves also create forms of uneven power, in internal relationships between physicians, prosthetists, therapists, social workers, psychologists and nurses, as well as between staff and patients.

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[99] see page 87

Secondly and perhaps more widely, Goffman's stigmatising cultural traits are evidenced during the interactions of the various healthcare elements of Serbia itself, at moments when they are defined vis a vis enforced liberal democratic European health care reforms (Crnobrnja 2007), which consistently raise the benchmark for provision of health services, at the same time as they stipulate the tightening in of hospital budgets, the downsizing of clinic spaces and staff and the lowering of subsidies. The slow speed at which Serbia is progressing through these reforms is increasing seen as lack of infrastructure and willpower to enacts them, and stagnation has led to the provision of substandard equipment, as well as a general lack of education of healthcare personnel, lack of investment in 'preventive' areas of healthcare as health services, due to a lack of financial support. All this points to health in Serbia continuing to be skewed toward curative measures. Additionally, due to the conflicting nature of *veze* and the weakness of the implementation of state law, actions that reinforce health links within one network, have the strong potential to stigmatise individuals within the other.

Cyborgs themselves are abstract collaborations, ways of describing sets of power relationships that arise between humans and objects. It is in this sense that they are morally ambiguous. Additionally the uneven dispersal of technology, and the conditions under which augmentation through technology become desirable that both create and are a consequence of forms of stigma, regardless of whether we are accepting and embracing technology into our body schema, or experiencing the consequences of rejection or unavailability of it.

That the prosthesis is compensation for a negative encounter with an unusual anatomy is also evidenced in the way that medical prostheses are often referred to as 'fake' or 'artificial' limbs (or organs) in popular media. In so doing, prostheses are assigned a value, relative to the 'real' or 'natural' body parts they replace. I would argue that this also implies a level of trickery, or deception - the tacit understanding that the person is attempting to 'pass', as Goffman (1963) puts it, as a *Normal*. When it comes to passing, some forms of technology are more successful than others and thus more desirable,

although what passing might consist of under various circumstances muddies the water somewhat. Thus in my fieldwork, for an amputee, passing aesthetically might consist of a silicon skinned but technologically inferior leg, or the presence of a purely cosmetic arm, depending on whether a patient has need for movement, while passing athletically might mean the sacrificing of aesthetics for superior biomechanics, and passing as citizen with the capacity to labour and earn might mean the sacrifice of both aesthetics and biomechanics in the desire for a financially viable, robust and hardwearing solution.

When my Serbian students, patients and friends told each other that Serbia was 'not normal' what they were at least in part doing was reminding each other that 'taking for granted' was not yet possible. Likewise, the period of learning to walk in the gait clinic was a period of 'not yet normal'. This is not to say that it isn't possible to be 'normal' without a prosthesis, simply that once the decision is made to use it, a period of adjustment and of hard work is required, before it can become transparent - it requires the acquisition of new skills, and this requires hard work. 'Transitioning' in Serbia now seems to me to be itself an extended period of alignment, where decisions about how to be in the world are being made, where desires for European membership are being weighed against desires for retaining territorial sovereignty, and more explicitly, it seems to me that this process has stalled, hijacked by the Crapanzano's paralysed waiting [100], and fear of making the wrong, and thus irreversible, decision. This is in the end how states and bodies differ regarding sovereignty.

As Kurzman notes with some irony, it is currently quite difficult to imagine a world where one's own physical prostheses might rise up against their makers and wielders (2001). It is less difficult however to imagine a sociopolitical and economic transitioning that creates new categories of citizens, new markets, and new risks, at the same time as it alters both supply and demand of materials, ideas, and technologies located within a vast international network. There is also a demand exerted on citizens located in these new markets, to keep up, to consume, and as time speeds up in accordance with the rise of

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[100] see page 82

new technology so those who fail to keep pace risk falling ‘out of time’, so much so that to be without access to technological structures - telephones, computers, television, public transport, a bank account, is increasingly to be seen as lacking the tools of modern life (itself a stigmatising condition)

> The managing of stigma reveals how highly complicated and unsecured the continuous process of displaying our competencies as normals is. It is society which establishes the catalogue of normal and abnormal attributes and we apply these categories unconsciously. Bearing in mind that all members of society have stigmas of their own and that they all try to put on faultless performances before their audience, [stigma] can be seen a [sic] collective effort to sustain the image of normality (Misztal 2000: 6).

Bionic Beings

Circling within prosthetics marketing, through cyborg studies and across a wide range of media is the idea that as people, we are becoming ever more ‘bionic’ in nature. What do we even mean though, when we talk about bionics, a term that brings to mind 1970s television programmes, such as ‘the six-million-dollar man’ or ‘the bionic woman’, fictional characters who gain superhuman powers through the implantation of electromechanical devices, not unlike the official Oxford English Dictionary definition of a cyborg cited at the beginning of this section. The term bionic is not nearly as new as we might think. Coined in 1958 by J.E. Steele, a medical doctor who worked at the Aeronautics Division House at the Wright-Patterson Air Force Base in Dayton Ohio (Lloyd 2008). Steele’s ‘bionic’ however pertained initially to the field of technical bionics, which is itself the study of how both humans and animals perform problem-solving tasks, for the purposes of creating electronic or mechanical parts that imitate them. The most ubiquitous examples of bionics include products that many of us come into daily contact with - the hook and loop fastening system known most commonly as Velcro, ‘cats-eye’ road reflectors (on the centrelines of our roads), and Goretex® waterproof breathable fabric. Other forms of bionic research include studying and mapping the organisational behaviours of groups of animals - swarming, flocking or

foraging for example, and the creation of mathematical data based on these observations, for the purposes of computational mimicry and analysis.

Much like the term cyborg, ‘bionic’ was quickly picked up by the science fiction community in the 1970s, where it obtained its more common meaning. Bionics as the enhancement of the fallible human body with superior technological parts has come full circle, and this sci-fi definition is now used within the pervading western (allopathic) medical system, where it refers much more closely to the replacement or enhancement of organs by devices designed to closely mimic their biological forerunners. Within the prosthetics industry bionic limbs are therefore those containing (powered) electronic parts designed to replicate closely the movements and functions of lost joints, this narrow descriptor existing to differentiate them from mechanical prostheses. This is why Össur can claim that the Cheetah® isn’t ‘bionic’ - it neither looks to nor replicates the lost ankle of the amputee. I would argue however that *it is however* a startlingly good example of technical bionics - where studying the technical specifics of the tendon structure of a wholly different species for the purposes of task solving has created a specific and specialised commercial product for human consumption.

The media interest in bionic people, be they science fiction, or real people ascribed bionic status - such as Pistorius - does not arise in isolation. It has grown in the public imagination together with a series of changes in the way we imagine bodies, health, disability, normalcy and our relationships to them. Many of us are familiar with the term ‘medicalisation’, defined as the means by which increasingly more broad areas of individual and social life are construed as falling under a medical jurisdiction. The medicalisation of these many aspects of life is considered by a great number of academic researchers to be one of the most pervasive and potent social transformations of the allopathic (western biomedical) twentieth century world. From birth (itself now a medical event, monitored and institutionalised to the point that for many, ‘home birth’ seems to be a radical medical choice), we are increasingly classified - whether by weight, gender, height, IQ, attractiveness - within a socially acceptable range of healthy

norms, so that to exist outside of them suggests that we have a condition in need of repair or restitution.

This transformation, whilst taking place within the geopolitical spheres of what many scholars define as the West - or 'developed' world, USA and Western European nations, nonetheless has bearing on all consumer markets, many of which become medicalised in the process of consumption.

Serbia is by no means immune to this process, despite its geographic and political location on the periphery of the European Union. Whilst part of Yugoslavia, health care was free to many citizens at the lower end of the economic spectrum, and whilst practices may have been substandard, the choice of treatments poor, the fact remains that many people who otherwise would not have been able to afford health care were able to (Kunitz 2004). Kunitz, examining the health consequences of the break up of Yugoslav, cites the following remarks by the then minister of health in Croatia in 1994.

> Health services had no fixed prices and were available to everybody, without any financial control. The system was separated from other financial systems, especially from financial inspections. Health care was a gift of communism to the people. It was forbidden to ask about its cost, although it was obvious that a very high price would have to be paid for it someday (Kunitz 2004: 1902).

In the wake of the conflict of the 1990s, the stagnation of the economy and international sanctioning left the Serbian health care system devastated. Building it up again not only required physically restoring buildings, investing in infrastructure and educating staff, but also, with a change in political orientation, required the transitioning of medical system by way of a series of reforms, that guarantee a basic level of health care, but with varying levels of co-payment. A four year National Health Account (NHA) survey was undertaken in Serbia from 2004 through to 2008, with the intention of producing analytical health care records for the first time, as such data were missing in governmental records (as I discovered myself on a very disappointing trip to the

department of demographics and statistics early on in my research) though little information about disability was available through it. The NHA does reveal however that funding is still skewed massively toward curative care, and that spending on pharmaceuticals has increased markedly (Gajic-Stevanovic et al. 2009).

Globally, the changing nature of the European/North American health care system places a premium on preventive self care. As Hjelm et al. (2005) suggest however, and as I experienced, health seeking behaviours in Serbia are influenced by a belief that health is not merely the absence of sickness or disease, but that it is evidenced when one's body is strong and can carry one through life, allowing one to work and to socialise, to eat all the foods that one enjoys, and to drink. This rubs shoulders uncomfortably with preventive self-care, because in this process sickness becomes equated with badness, gaining a moral capacity. Smoking, excessive drinking, and overeating have all largely become symbolic of a moral decrepitude. However, if patients believe that it is when they are at their most healthy that they can partake in all the pleasures that life affords, then biomedically speaking this is a state which is always precarious and under attack, due to patients' differing understandings of risk and health.

As I have just mentioned, over and above these well researched areas of medicalisation, our lives have also become increasingly dominated by discourses of risk and health, in what Clarke et al. (2003) call 'biomedicalisation', referring to major, largely techno-scientific changes in the way biomedicine is conceived and the technologies falling under its rubric. Innovations in the fields of nanotechnology, molecular biology, biotechnology, transplant medicine, appear to redefine what health, normalcy, and morality mean. These changes, which take place for the most part in the laboratories and medical clinics of wealthy countries with money to spend on research and development nonetheless influence medical ethics, media coverage, advertising, and thus become evidenced in Serbia, in poster advertisements, and pamphlets given out by sales reps for international companies. The standard of body enhancement is therefore laid out in front

of patients and their physicians, even as they consume (relatively) inferior quality products.

Many of the ways that we encounter products deemed ‘bionic’ in nature, involve impairment, breakdown and/or dysfunction of the physical human body. Joint replacements, artificial heart valves, cochlear ear implants, all involve technologies designed to mimic the human body closely, replacing the biological with the technological. The ways in which we conceive of prosthetising the body through technology have become increasingly complex, from neural and sensory implants that work by recognising the plasticity in brain functioning, to technologies allowing us to manipulate objects with our minds. Anthropologists working among these engineers (most notably Cerqui 2002), note a discourse of post humanism is propagated among researchers, some of whom view the body as an impediment to the circulation of information.

Cerqui also notes that technology, as I previously outlined, is really about the speeding up of time. For some of Cerqui’s informants, the body itself is already the imperfect prosthesis that the mind must operate within, and in a society governed by the circulation of information, the ideal and perfect ‘body’ would be a freely existing brain, directly connected to the internet, able to upload and download and search for information at will (ibid).

In 1993, Latour’s volume, ‘We Have Never Been Modern’ was published in English, and within its pages, he picked apart the notion that somehow we ‘as moderns’ have overcome the natural world. He sought to collapse the boundaries between social (technological) and natural worlds by arguing that the distinctions between them are created in discourse, rather than lived realities. For Latour, we are all hybrids, but unlike Haraway’s cyborgs, our hybridism is not created by the special circumstances of a technological revolution, instead it has always been a feature of human life, which Latour conceives of as an interaction of people, things, and ideas.

Throughout this thesis I have attempted to show that the very idea of creating and of using prosthetic devices is caught up in both historical ideas of personhood and individual experience. The ways in which we achieve legal, social and political status as people, and how we experience this status have been increasingly challenged in relatively by a variety of well known scholars (see for example Douglas and Ney 1998) who have argued against the construction of the 'self' as a singular autonomous individual, referring to non-western settings where humans acquire status as people through processes of becoming socialised into a group. While it may appear that I have so far avoided the topic of personhood, this is not due its unimportance as a theme, but rather, due to its relationship with cyborgs - there is after all, a time and a place for everything.

Personhood, for many a recent philosopher of science, is challenged through the creation of the cyborg, a theoretical position whereby the principles of personhood are extended beyond the realm of the fleshy human self, through machinery and/or technology (Haraway 1985, 1997, 2001, Winance 2006), Studies within this field often ask the question as to what the limits of this relationship are. That is to say, how much of a person can be modified, before we lose our status as a person, or even as a human. What is it that defines us as people? If our brains could be exchanged out with artificial parts where would *we* be located? In this world of extended possibilities the body is sexed-up and sped up, this exceeding of the limits of the body considered desirable.

Seeing as prostheses necessarily bring together humans and technology in ways that are remarkably intimate, it could, with reasonable ease, be argued that to speak of technological prostheses, it is necessarily to invoke the image of the cyborg, I would like to argue instead that prostheses (both physically and conceptually) show us how personhood is historically and continually dispersed over a number of agents, and that what constitutes an individual citizen is really the multifold practical negotiation of networks created of Latour's trifocal relationships of people, things and ideas (1987, 1988, 1993). The externalising of the limits of the body into objects is no indication of

modern medicalisation, as when we examine the genealogy of prosthetic transfers, these afford us all manner of historical augmentations of the self, from passports: which augment citizens into state documents, and, when such citizens cross boundaries, augment the fleshy borders of the state, even if temporarily. The origins of *prosthesis* suggest multiple and complex understandings of the term: even that language itself can be construed as prosthetic, augmenting the body via the spoken and/or printed word; that the biological body itself is already simply the one of many prosthetic expansions of our minds, a view point that may yet become more prevalent amid increasing research into mind controlled prostheses.

Cyborgian interest around hybrids can only make sense if one believes that society and nature, or politics and science (Latour 1993) were at some pre-modern stage (previous to the 'modern' world that we inhabit) separate and concrete objects; and furthermore, that their post-modern blending is a product of our triumph over these falsely discrete entities. The blurring of boundaries, or their rendering as permeable membranes nonetheless still assumes their historical existence. Latour simply asks that instead of imagining some new permeability between these categories - some of which we hold as natural, and some as cultural, we simply accept that they are all equally constructed in our imagination as defined 'quasi-objects' (1993).

If we consider the qualities of prostheses, both literary and physical, it becomes clear why they seem to emerge as sites of production for metaphor and allegory, indeed prostheses are ripe with paradoxes and hybridity; they ease communication, they support, they augment but do not alter meaning, they mimic, replace, conceal, add to, they imagine a whole through the replication of parts, increase efficiency, they unsettle, intrigue, and reveal the porosity of our fleshy selves. Located in the near future, the marketing of prospective physical prostheses reveal aspects of consumerism, socialist principles, late capitalist associations and neoliberal moral ethics. Prosthetic augmentations and replacements both play on our dreams to supplant and surpass the

body, and when experienced in the presence of phantom limbs make clear the discrepancy between the body held in one's mind, and the mind held within the body.

It is precisely due to these potentialities that they inspire so much ambivalence. The reality of the uneasy marriage of flesh to machine has much more to do with compromise and the approximation of normal, than it does with the creation of extraordinary abilities. Where extraordinary capabilities are involved, they are far more likely to be the tolerance of pain, or social exclusion, the overcoming of social stigmas to acquire 'normal' characteristics. That these compromises and networks of ineffective and affective actions, people, things, and ideas affect us all as citizens is something that we are much less likely to think explicitly, unless the prosthetic networks in which we operate are themselves compromised or even broken. Even then, the fact that we are constantly in the process of externalising ourselves often escapes us. Instead these elements are simply considered to be the background noise of normal lives.

> A belief in situational normality helps an individual to form a trusting intention during interactions with other parties, to be 'able to take for granted, to take under trust, a vast array features of social order' (Garfinkel 1967: 173).

Although it is difficult to argue against Haraway in defining cyborg relationships to all human-tool interactions, I would like to present an addendum to her statement that we are all cyborgs. Certainly we are, though not for the reasons that 'cyborg anthropology' would have us believe. Rather we are cyborgs because of our embedding in a global network of exchange, of flows of capital and ideas. We are cyborgs simply because we are people, because of the externalising of the limits of the self into the prosthetic structures orbiting us, without which we would not constitute legitimate people, but despite increasingly complex networks that we create, I do not believe that we are cyborgs due to a *new* and special relationship to technology. The networks that we create, and that create us in return are for the most part historically defined, they are the mundane and bureaucratic processes of daily life, clothes that we wear, food that we eat,

the elements making up transport systems, flows of capital into and out of our possession, the stability and predictability of the everyday, which is always, by its very nature, robust and precarious.

TOWARDS A CONCLUSION: PROSTHETIC CITIZENSHIP AS ONTOLOGY

We are our bodies - but in that very basic notion, one also discovers that our bodies have an amazing plasticity and polymorphism that is often bought out precisely in our relations with technologies.
We are bodies in technologies.
(Ihde 2002: 138)

During the 5 years that I have been researching prostheses, there seems to have been even less interest in them as physical objects from the field of social science, even as technological innovations seem to attract increasing media coverage and researchers such as Henare (2005) call out for an epistemology of things. What research does come through now is geared toward virtual reality, to social media, and to the pressing of ourselves into cyberspace, such as Cleland's 2010 article on visual first person avatars, entitled *Prosthetic Bodies and Virtual Cyborgs,* or Cerqui's (2002) pondering about the fate of humankind, in an age where digital communication hopes to link minds, rather than people.

The potential to expand ourselves, according to these thought provoking articles, is limited only by our finances. How easy it is, to simply buy our way into overcoming our messy bodies, our mortal selves. Or is it? Examining the histories of pragmatic and hardworking prostheses (expensive or otherwise) makes it immediately apparent that hard, physically and/or emotionally painful work is involved in their production and usage, and that this will always be a factor that must be accounted for, for technology applied to the body, as Wills (1995) notes, is a double edged sword, and it always has the capacity to wound. Prostheses provide people with a means to 'pass' within the spectrum of normal deviation from an ability that they are in some way disabled by. 'Devices, mainstreaming and overcompensation techniques all provide means for people with disabilities to "fit in" or to "de-emphasise" their differences' (Snyder and Mitchell 2000: 3), however as technological interventions become 'normal' it becomes increasingly apparent that we also experience a disablement when we choose to live without them.

Prostheses lead on to further technological intervention, in that their consumption inevitably leads to further consumption of goods and services. The external limits of the self are increasingly dictated by elements outside of one's own control, by patents, and import / export laws, by sanctioning and healthcare funding. The wounding capacity of

technology is also evidenced in technological replacements that are on the whole irreversible, not in the sense that they cannot be removed, but in that what was biological and removed from the body cannot be replaced with something equal to what was lost. The replacement limb is approximation of normal, an aid to 'ease communication'. A prosthetic limb may be just as 'real' as a biological one, but its addition to the body produces a wholly different power trajectory.

New technologies and the people who write about them, are always pulling our imagination through to the realms of what is *possible.* Sometimes these technologies are incorporated into our lives, however most of the time they remain separate from us, located in the future/present, restricted to clinical spaces, military research laboratories, or the imaginations of their inventors. In this sense, 'cyborg anthropologists' are themselves writers of science fiction, because despite much debate over how we will live lives in the future, when the replication of human life in cyberspace meets the reality of messy human entanglements in geopolitical spaces, the question becomes, what is science fact?

While introducing this dissertation, I wrote that like Jain (1999) I would not be making a claim for a specific prosthetic *identity,* as identity concerns are simply incomprehensible through the study of prosthetic augmentations. I stand by this, and still feel that it is akin to saying that identity is unable to be grasped by the study of citizenship. This is also the reason many issues related to what might be called a phenomenology of prosthetic personhood have also remained unexplored in this thesis.

That said, there are definitely themes that have emerged, which, in a future period where I am less ethnographically bounded, arise as points for additional contemplation. These broader questions of being arise from the theories of Heidegger and Merleau-Ponty, on the nature not only of being 'bodies in technologies', but of being prosthetically constructed people, located in geopolitical and technological landscapes. Csordas (1990, 1994) might well have claimed that the body was the existential ground of culture, but as

my citing of Ihde (2002) at the preface to this section reminds us, what we consider to be 'the body' is itself up for constant (re)negotiation, and prostheses themselves only muddy the waters of where exactly one's physical (and increasingly cognitive) limits even lie. Phenomenology applied to embodiment and prosthetic limbs is therefore difficult territory, though no less than when it is applied to ethnography. Especially when the two are combined, how does one go about expanding individual experiences into a text capable of insightful knowledge. Everyone experiences their bodies differently of course, and, to use Heidegger's famous epitaph, there are no guarantees that my experience of 'redness' is the same as yours. However, the study of prosthetics has broadened my understanding of text, and of experience, and of the co-mingling of the two.

> The writing of prosthesis, [...] is inevitably caught in a complex play of displacements: prosthesis being about nothing if not placement, displacement, replacement, standing, dislodging, substituting, setting, amputating, supplementing (Wills 1995: 9).

Even as researchers involved in social studies of medicine have remarked on the need for 'case studies of that attend to the heterogeneities of biomedicalisation practices and effects in different lived situations' (Clarke et al. 2003: 185), ideas surrounding the provision, production and consumption of biomedically informed products continue to be skewed toward a neo-liberally informed European and North American capitalist market.

Recently I discussed my research with a prosthetist (who was, in a continuing nod to the origins of the discipline, also an amputee) based in Central California. 'How could the amputees you worked with stand not having mechanised knees? Not having myo-electric arms?' He wanted to know. 'How could they stand not having a full range of motion? Their independence to do as they pleased?' It is perhaps telling that this exchange took place within a SCUBA dive vessel that I was working on, and that the prosthetist was himself a diver who could, he told me, simply upgrade components in his 'sports' leg as

they rusted up in the salt water. He was aware that this afforded him a certain advantage compared to other amputees, who he noted, would have had to pay for appointments through a complicated entanglement with their American health insurance company, as well as with one of the few insurance companies specialising in diving insurance, and doubtless another one to insure their personal 'property' (the prosthetic leg itself). Many he noted, would have ended up paying for components themselves, or even a dedicated swimming leg, a feat that would have doubtless required substantially deep pockets.

Much like Todorova's oppositional identities in the Balkans (1994), prostheses are also in many ways defined by what they are not quite able to do, neither fully abling, nor disabling, neither fully enhancing, nor restoring what was lost. They utilise the principles of bionics (in its original sense of transformative mimicry) but, in the quest to replicate the body, and the possibilities that 'normal' life offers, they instead create a wholly different way of being in the world, whilst at the same time maintaining a sense of social normalcy: the creation of order. Prostheses also speak to our desire for affective action, a way of locating hope in movement. These are lofty goals indeed, and so as we move toward these bigger themes, I find it prudent to summarise the breadth of this dissertation so far.

I began by investigating both the origins of physical prostheses, and of the term itself, finding in the process that 'prosthesis' began life as a linguistic term, for easing communication, which perhaps helps to account for some of the paradoxical qualities of physical prostheses, as the transfer of linguistic devices into lived experience is just as fraught as the ethnographic effort of translating experience into text. The terms 'prosthetic' and 'prosthesis' were shown to have perceptible differences in etymology, the former denoting a relational positioning, and the latter referring to the structure being added.

Physical prostheses were shown to have historical origins that are strongly connected to the military, and remain so, in an explicit example of Jain's (1999) statement that

prostheses in fact supply the very deficiency to which they offer the solution. The history of prosthesis manufacturing and rehabilitation in Serbia was explained, and shown to also have strong links with the military; from the inception of the Bela clinic, where I was located, to the 'triaging' of a distribution of care among patients, based on the perceptions that staff held as to their potential for quality of life. This connection has been maintained, despite the provision of a specialised military welfare system for veterans to which I was denied access, as hospitals shared surgical staff, and thus patients in the civilian welfare system benefited from the better pay salaries of military surgeons.

The fieldwork that this dissertation was formed upon was originally conceived to ask questions about memory, violence, in the presence of politicised bodies, and during the absence of speech. However, fieldwork, as is often the case in anthropology, led me in a slightly different direction, instead pointing me toward the ways in which normalcy and citizenship are constructed through increasingly global networks of people, things and concepts. This altering of focus is perhaps both the strength and the weakness of this PhD, and the time to ask the 'what if's', of fieldwork that plague us all upon our return from research, for as many people during my return from the field have asked me, 'why Serbia?' 'Why prostheses?', and, more explicitly, 'why prostheses IN Serbia?'. In many ways my fieldwork proved far richer than I could have anticipated, and despite not being able to access army veterans, the staff and patients at the Bela clinic welcomed my presence, as did Janko's family and neighbours, my students and colleges proved to be a valuable source of information about 'normal' life, invested as they were in overcoming the limitations of travel and economy. In many ways the lives of my students at the private university were very different to those of the patients at the clinic, however, the discussions both groups generated about 'normalcy' and citizens, were strikingly similar. This allowed me to question the very fundamentals of normalcy. So, why prostheses and Serbia? To begin with the twinning of these themes allows something that is more than the sum of its parts to emerge.

In 2007, one of my initial goals was that:

> At a micro level I seek to understand the construction of lives through the construction of limbs. I hope to trace the production of prosthetics [sic] from their creation in Novi Sad to their end usage on bodies of citizens, thereby exploring the interface of flesh and machine. Through ethnographic fieldwork, and collaboration with bio-mechanists, prosthetics makers, and the recipients of limbs and other prosthetic devices, it will be possible to see theories of health-as-nation building reproduced in small, through the human body, and embedded in networks of meaning (Milosavljevic 2007: 36).

In the end, the physical construction of bodies can been seen in this dissertation, serving as the catalyst for a realisation that beliefs about the moral attributes and capacities of individuals are really based on the fallacy of a singular and autonomous body that each of us inhabit. Instead what emerges through this work is that the edges of what we term an individual can be questioned, and may be dispersed through bureaucratic paperwork, technological structures, or even through the presence of other bodies. Individual citizens are created through the manoeuvring of these links. The individual that each of us is, at any particular moment, is the amalgamation of multiple people, objects, and ideas, into a grouping that allows each of us to create effective action. Whether this action is for or against the state is not really the point. The larger issue is simply that we are capable of producing meaning through action. Furthermore, this current grouping will doubtless require compromise on behalf of each of us, as choices to be a particular kind of person close down options to be another. Renegotiations of these grouping are possible however, and relatively frequent, as we choose, then temporarily fix our networks during periods of 'trying on' relationships to new structures (Winance 2006). These renegotiations can be, and often are, strange and somewhat illogical, something that, like Zivkovic I often found to be the case in Serbia

> What my research in Milosevic's and Post-Milosevic Serbia drove home for me is that the ability to simultaneously hold incompatible views is a normal human situation. It is only a special training in, and sustained focus on, coherence such as we academics undergo that

> makes incoherence induce symptoms of motion sickness (Zivkovic 2007: 619).

Serbia, and in particular the autonomous and ethnically diverse province of Vojvodina, yields a complexity of sentiments related to war, national identity, citizenship and the eventual positioning of the region within the ever-expanding European Union, much like many of the countries located on its 'immediate' outside. In Serbia, strong networks of personal friendships, familial ties and *veze* bisect these views, requiring both moral and practical negotiations that either strengthen or erode structures of state functioning (sometimes both simultaneously). While my fieldwork is perhaps given to more extreme examples, conducive with Serbia's recent history, I maintain that the prosthetic structures that we *all* use to augment and externalise our bodies are never guaranteed and are always nodes in precarious networks, able to be broken and remade, either by ourselves, or by the collapse of external elements.

This leads me to another of the original goals for this research, one that has had to play a decidedly lesser role, as I have changed focus. In 2007, one of my intents was to explore the positioning of Serbia as one of the 'new neighbour' countries (on the margins of the EU both politically and geographically). I wished to examine the implications for health policy of the eventual merging into the EU and ask how health provisioning was being re-conceptualised as state building. I also wanted to show how the constant interference of the EU was legitimated by both historical constructions of a Balkan character, and by an emerging global political citizenship (Milosavljevic 2007).

Health reforms have however been slowly moving forward in Serbia, away from what Kunitz generally describes as a 'communist' model of healthcare, characterised by terrible efficiency, and lack of innovation, yet paradoxically popular, due to the provision of services to all members of society free of charge. One of the surprising revelations of my fieldwork was the existence of the 'American' model at the Bela clinic. The implanting of a midcentury American psychosocial model of amputee rehabilitation at a specialised inpatient prosthetics clinic that was essentially a large

enough clinic to serve Tito's Yugoslavia, was an unexpected example of how aspects of hybridism in medical discourse that many consider to be indicative of new global international health-scapes, are in many ways simply increases in flows of goods and information along networks that already existed. I hope that I have shown that as technology first and foremost facilitates the speeding up of time, these increases are themselves not unexpected. If nothing else, the history of prostheses shows us explicitly how people are created within competing tropes of aesthetics, labouring capacity, and mobility. Thankfully, they do much more than this.

Researching in the Bela clinic allowed me to witness the strength of will and the breadth of resources required to attach a physical prosthesis to a person, and to wield a prosthetic limb with skill. I also observed the discrepancy between the types of future that the marketing of prostheses promises, and the actuality of life 'on the ground', learning in the process that technological advantage is not necessarily the most important aspect of prosthetic rehabilitation, which is instead contingent on one's ability to make use of those resources (prosthetic, orthopaedic, financial, bureaucratic or otherwise), that can best provide the possibility for social normalcy and affective moral agency - two aspects of citizenship that I have also shown cannot be taken for granted within the Serbian context.

Serbia is shown to be a site of hybridity, an oppositional space, located neither fully in the West, nor in the East, plagued by 'phantom' populations, created by the distribution of ethnic diaspora populations over historically mobile boarders. Post-socialist transformations of ideal populations are shown; from the re-imagination of the peoples' hero peasantry into backward country bumpkins, to reworking of corrupted city dwellers into pro European business players. Serbia is additionally shown to exist in what I call the 'twilight zone', a period of 'not-quite-there yet'. I maintain that for many Serbians this extended period of waiting is preferable to the alternative, as it allows a multitude of futures to be imagined, and the past to remain vague and relatively unacknowledged. It

is also a feature of the lack of ‘normalcy’ in Serbia, generated by, and in part causative of the quickly changing political landscape.

In the third chapter of this first section, I began to unravel questions of normalcy, and of prosthetic citizenship itself, in the process asking how it is that people negotiate daily life from within the ‘twilight zone‘. I investigated how normalcy is construed as having both historical and comparative elements that become strained by citizens’ reliance on differing strategies for creating moral action. These actions are also prosthetic in that they supply their own need, as they continually support and undermine alternate networks of *veze* and of state governing.

Citizenship in the Balkans is investigated, and I find that in Serbia, the close ties of legitimate citizenship to ideas surrounding ‘the red passport’ are both evidence of citizenship as the possibility to interact physically with the world outside the borders of Serbia, the fate of undetermined and over hybridised territories is the closing down of these channels of movement, as well as the closing down of bureaucratic channels of welfare. These over-hybridised populations are then shown to utilise prosthetic structures to bring themselves in line with a particular type of citizen, so that they can access the resources afforded to that group. The concept of a ‘normal’ citizen is shown to be based upon an abstraction, around which is an acceptable degree of variation historically linked to the need for nations to delineate and define classes of citizens, and tied to the desire to augment deficiencies and bring oneself into a tolerable range of difference. In Serbia I show that *veze* itself is a kind of prosthetic augmentation and investigate previous uses of prosthetic identity in anthropological texts before moving to the final and penultimate section.

In the second section I discuss the production of hope, linking it through prosthetic rehabilitation to the capacity to create forms of action that allow for ‘normal’ moral agency. These hopes are created and cemented through motion, or to be more precise, by the creation of forms of movement that fall within a tolerable standard deviation of

normal. Normal and legitimate forms of movement across borders are also pointed to as signifiers of appropriate citizenship in Serbia. The 'work' of hoping is shown to be located in the present, rather than geared toward the future, in expressions of action.

Hope and rehabilitation are shown to be tightly bound together, requiring different performances at various stages in the alignment process. The rehabilitation of patients together with their families shows that the reconstitution of the different aspects of an individual person into a citizen is most often achieved through making use of additional family members, resulting in the propping up of the singular body with both technology and with additional bodies. The roles of therapists, doctors and prosthetists are discussed, especially where they facilitate the exchange of language for experience or vice versa.

Different types of prosthesis create different kinds of citizens, and this dialogue is found to be ongoing and ambivalent, where specific actions become possible while others fade. Likewise, the ways in which prostheses embody both hope found, and hope lost are examined. I conclude this part of the dissertation by maintaining that we are all in some ways abled and disabled by science, in mutable networks that constitute our bodies. Prosthetising hereby emerges as a transformative act.

I go on to describe how patients use *veze* connections to lay claim to specific transformative identities, when such options are not available or not considered to be appropriate, and introduce the principles of Actor Network Theory as a way of anchoring the differences between potential and lived realities. Prostheses emerge as sites of 'potential' agency, as they are a catalyst for action. Their relationship to phantom limbs is also explored, as is the production of risk, applied to amputation and to body contingency. The differing ways that bodies are read as passive or active, as disabled or desirable are investigated next, as is the curious way that prostheses aim to present a whole, based on the sum of exchangeable parts. Amputation is also shown to disrupt social relationships, and the period of alignment that comes during rehabilitation is as

much about reorganising a place in the world as it is about restoring the physical and gendered body. The networks involved in the creation of a prosthetic post amputation individual in Serbia are laid bare, and the many functions of the prosthesis itself, aside from its explicit point as a limb replacement are presented, as is the curious relationship between prostheses and phantom limbs.

Taking my ethnographic experience and the bulk of the literature collected, I offer a critique of cyborgs, detailing how it is that terms now ubiquitous within the discipline of anthropology have actually evolved, and addressing how due to their very nature they have a disconnect with the mundane realities of daily life, which I see as being fundamental to the principles of anthropological theory. I make the claim that while we are all bodies in technologies, these are not necessarily the same forces that make us cyborgs. I conclude that the limits to the plasticity and malleability of the body are much more practical than studies of cyborgs would have us believe, based on networks that cut across a diverse flow of ideas, trade and exchange, politics, and people. Amputation in Serbia is shown to have stigmatising effects, as is the positioning of Serbia in the international health system.

Finally I find that cyborgs are really themselves abstractions, ways of describing the uneven dispersal of technology into populations. As with hybridity, they are neither one thing nor the other, and the mixing of two tropes creates a moral ambiguity that raises tensions. I argue that we are always hybrids, and that talk of blurring boundaries assumes that at one point these were more solid. I do not believe that we have a *new* relationship to technology, rather that relationships to new technologies are always in the process of becoming normal, and that the propping up of the body into this category is an ongoing and continuously renegotiated process.

The Situation is Always Becoming Normal

All technologies and forms of knowledge that make the transition from experimental clinic to community, are at first new and unknown, be they electrical lights, telephones, or digital televisions. Yet, at some stage, those that a majority of people find to be appropriate and useful, become part of the meshwork in which we live, no longer startling or strange, but rather familiar and mundane, regardless of whether we embrace, avoid, or approach them with ambivalence. Let us not forget that even anaesthetic was once the subject of much scepticism, as were germs, the fact that Pluto is not a planet, even the very concept that the earth rotates around the sun. As I write this chapter, scientists, lodged underground in their warrens at CERN have 'found' the Higgs Boson particle, but there was once a time when the mere existence of gravity itself was up for debate.

Cerqui's (2002) transplantation engineers consider that every human biological function is a physical process, even the workings of the mind. For them, every aspect of the body is therefore knowable.

> Thus, even if we still do not know exactly how the brain works, we will certainly know one day. And we will then be able to construct an imitation/simulation of the brain. *Every new scientific discovery brings with it new scientific questions*[101] (Cerqui 2002: 102).

Knowledge is power, the power to imitate, and to simulate. It is interesting also that these scientists use the brain as their example. As people are deeply enmeshed in their surroundings, they tend to use forms of knowledge familiar to them to describe themselves, thus it is that throughout the history of western biomedicine, the body was once a sacred site: containing the cosmology of the universe. Later it became mechanical in addition; as pumps, plumbing, levers and springs became common fixtures of public imagination, so did our descriptions of muscles, organs and the movement of liquids in

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[101] My emphasis.

the body. One of the many auxiliary organs that Freud described in 1930 was the motor engine. Still later electronics were ‘added’, in descriptions of the nervous system. Emily Martin (1990, 1992) has additionally shown how the public imagination of immunology imagines a territory under attack from external forces, in need of protection from the body’s ‘army’. Currently with the rise of information technology, the body is increasingly cybernetic in nature, where our mind functions are perceived of computers, with memory banks.

Surprisingly, our physical bodies have not ‘evolved’ during these many descriptions. Nor have old descriptions of the body all been surpassed. Our hearts are still pumps, the condition epilepsy is often referred to as faulty electrical wiring. While we may live longer than our ancestors, given advances in diet and medicine, we are biologically the same. It is only our changing relationship to technology that changes how we see ourselves. In this respect, our great, great-grandparents were just as cybernetic as we are, and we are in turn just as historically constituted by our current forms of knowledge.

A colleague once suggested to me that we were all in the process of becoming more disembodied, and that the aspects of ourselves that define us as legitimate people now exist wholly outside of the body. This colleague cited credit cards, tax identification numbers, and the acquisition of debt. Here too is historical precedence however, and as research in the Balkans has taught me, controlling the mobility of populations, and the movement of borders has always required legitimate external forms of identification, whether they be letters of introduction, birth certificates, passports or church records (Scott 1998). Hybridity emerges as a site of contention when there is either not enough evidence to support citizenship, or too much, supporting multiple citizenships (Green 2007). It is both a cause and a consequence of ambiguity, which causes anxiety about what the ‘true’ nature of an individual is. Merleau-Ponty wrote in 1945 that it was not possible to be a human without hands or sexual organs any more than without thought. Perhaps what prosthetising the body - and understanding an actor defined network of

distributed agency does, is to allow us to expand our ideas of what hands, organs, or indeed thought are.

I would like to suggest then, that we have always been in the process of externalising ourselves, but that this embodies rather than disembodies citizenship. Posthumanism and disembodiment after all, only makes sense if we work on the assumption that the historical limits of an individual consist of one physical body located in one particular location.

Prosthetic citizenship therefore allows us a way of understanding the distribution of the self in multiple relationships and locations. While this is explicit in the case of physical prostheses, it is also implicitly the case in all forms of technology that we interact with. Each time we make choices (or have them made for us) about whether to adapt to new technologies or not we are cementing a choice to exist in a particular way, and the external elements of ourselves align themselves appropriately to this. Other actors make some of their own decisions based on our choices, or have them limited as a consequence. In this sense our relationship to these technologies that support and augment ourselves is always in the process of 'becoming normal'. This is always a state of 'becoming' and never of 'being' because the result is never genuinely fixed - some of the networks that comprise technologies are outside of our control and subject to flux. The ubiquitous telephone for example, so often cited as a prosthetic device for extending our ears and voices across vast distances, requires not only electricity for battery charging (in the case of mobile phones), and bill payment by an individual, but is also contingent on network coverage and compatibility - both of the caller and the receiver, as well as the competency of the user or receiver to utilise the device. Being totally accessible and traceable doubtless has various disabling qualities, but then so does the decision to not have a phone and to remain out of contact.

Within this dissertation, I have suggested that in Serbia, 'becoming normal' is about creating the capacity for effective moral agency, and that the popular saying *'nisi/nej*

normalan' or 'you are/it is not normal' is not only a way of positioning oneself on the 'outside' of a desirable European future, but serves the purpose of reminding citizens that the mundane workings of the state are as of yet still unable to be taken for granted. Just as we approach normal, its limits are pushed further toward the horizon. The Serbian reaction to this is to approach this future and as yet unreached normality with irony. Serbia is almost always portrayed as an antagonistic state: quick to anger, proud, nationalistic to the point of fascism, backward and belligerent. From an anthropological standpoint, it appears often in the cladding of an oppositional orientalist identity (Bakic-Hayden 1995), accused of being more 'eastern' than the West, and more 'western' than the East. It is defined by what it is not.

Much like both Jansen and Van der Port, my experience of Serbia was governed by perceptions of my foreignness, with my more sympathetic moments placing me in the good graces of my friends and my associates, and my more antagonistic questions carrying me further from them. However, I often played a trump card, a blood connection, in a land where blood carries so much meaning. I was never told (at least explicitly to my face) that I could not understand the ways of Serbs. This Serbian blood was evidenced by my knowledge of my slava, the fact that I had been to visit my grandfather's village, and not least my love of the kafana, rakija and fried pork products. It is Serbian blood, friends would say, that makes you one of us. Unlike Jansen (1996) who was told that it was 'natural' that he would never understand the nature of Serbs, or Van der Port (1998) who was told that it takes a Serb to know one, I was often embraced as the prodigal daughter 'come home', never mind my almost non-existent language skills upon arrival. I was my family who had come before me. Through their blood thundering in my veins, I was released at least in part from the trap of empathy for the foreigner, who could never 'really' understand what it was like to be a Serb.

It made me smile at the time, especially at Janko's home (who was, much to his mother's disapproval, a vegetarian) as his wife, and mother and I retired to the kitchen to eat chicken soup and great clouds of cottony white bread, or reheated sarma, or drank

rakija distilled in their neighbours backyard. In the weeks leading up to my departure, I would often visit just to sit, listening to the kids chattering about their schoolwork, wondering at the mysterious nature of my own *veze* stretching across continents and time, stemming from a chance meeting in my parents kitchen, 6 years ago.

The practicalities of being simultaneously Serbian, not-Serbian and not not-Serbian make me wonder how much information and leeway I was given due to my status as a prodigal daughter, returning to the fatherland, always tempered by my imperfect language. I am also certain that as Van der Port (1998, 1999) speculates, there are doubtless gendered aspects to the production of what he terms obstinate others, his world of *lumpovanje* is as stark a display of masculinity as can possibly be found, and the Bela Clinic was headed by a succession of strong willed women. Indeed the focus on my Serbian-ness, the fluxes and flows of its closeness of it to me was always the case at the Bela clinic. In contrast, while at the university, my students knew that I came from New Zealand, and had come to the logical conclusion that I must have married a Serb and thus come to live in Serbia. Many of them longed to leave so badly that it was the only reason that they could think of that I might have chosen to move *to* Serbia.

Thus it happens that I am my own oppositional identity in this text, neither one thing nor the other, defined by what I am not. Far from a native ethnographer, but neither a fully fledged foreigner. Disabled by my imperfect language skills, my blood becomes the prosthesis by which I am structurally propped up into the realm of tolerable difference. It is an indeterminate position, and yet through it I am vitally present at all times within this text. I have tried to remain so, while realising that there is still much room to manoeuvre within the interpretations of all the raw material that I have sifted through. There are other ways of dealing with prostheses, other meanings, other cyborgs, other ways that normalcy has been defined and described. There are other relationships that may be explored. The few that I have elucidated here are those that I find most pertinent to my observational data and to interviews that I conducted whether at the Bela clinic, in

the gait labs or in the therapy rooms, or in the classroom, in the kitchens and living areas of the homes of my friends.

We Have to Live: Future Directions For Prosthetic Research

Phenomenological understandings of the world have been increasingly under attack in the last 20 years, most notably by the fields of disability studies, and from feminist scholars, who have increasingly raised issues of embodied knowledge and questioned what it means to be 'normal'-in-the-world. From the ground breaking works of feminist scholars such as Young (1980) to the quieter works of Grosz (1994), Shildrick (1997) and Oksala (2004), a feminist phenomenology has emerged as a critical undercurrent in the body of phenomenologist literature. Grosz' work of the phenomenology of feminine bodily comportment is of particular note here, because although I am aware that it is still primarily men who wear prosthetic devices, in studying how women move through space, Grosz notes that while the (healthy) masculine experience of being-in-the-world is might be summed up in terms of the rubric of 'I can', women's physical movements are often inhibited and truncated, leading Young to posit that they experience the world much more ambiguously, in terms of things that cannot be accomplished (Young 1990). The same 'I cannot' might be said of amputees who must learn the physical dimensions of the body all over again. Furthermore, the disabled body is also dualistically paired against the healthy male, in much the same way as the female, and the disabled or pathological body is often contrasted against the normal. Though I have touched on the subject of gender, this is an area of prosthetic rehabilitation that I would like to explore further. Likewise the connection of prosthesis based research to the military could be explored, though probably not within a Serbian setting, given their reluctance to have anything to do with me. In the States, the massive budgets of military research units conducting research into human rehabilitation mean that technologies can be trialled that civilians are not likely to experience, and are the driving force behind many new prosthetic devices. This is also perhaps an area worth exploring.

Prostheses, be they linguistic, physical, cybernetic, metaphoric or otherwise, are about the creation of social order from the possibility of infinite choice. Though they have come far from their linguistic beginnings, they continue to be an augmentation to ease communication, whether we are talking about language itself, or communicating the positioning of bodies into their social, and increasingly technological milieus. Prostheses, in this manner, bridge the gap between the knowable and the experiential. They are also about the creation and maintenance of social order. A 'normal' gait or body might not exist in any *real* way, however there is a standard degree of deviation from this abstraction which is tolerable. The ways of acting and/or being that fall outside of this range need to be bought under control, as they pose a threat to normal social relations.

Ultimately, by employing a historically and culturally aware approach to understanding categories of health, citizenship and disability, this dissertation furthers knowledge into the ways in which understandings of individual bodies as both a product and a process are encapsulated within state and international health policy, as well as ways in which these policies have an impact on the daily lives of individuals. It offers up constructive critiques of terms now themselves normalised within social studies of science. By placing this research in Serbia, aspects of Serbian citizenship previously unexplored have also been bought to light, such as the difficulty of creating affective moralities when one's access to goods and services comes at the cost of undermining the state, or the ways in which the production of twilight zones allows multiple futures to be imagined at the same time as it pushes these futures far into the distance.

This work stands then, not in opposition to recent theories of prosthetic people (of which there are increasingly many), but as a constructive evaluation; a reminder that prosthetising is inherent in *all* forms of technology. I wish to make it clear that while I accept that prostheses may lend themselves to all matter of analysis, my choice to investigate human medical prostheses is for the purpose of opening up a space where links and relationships with the world can be tested out, to see if they are rigid and fixed,

or mutable and open to reinterpretation. I hope that this in return results in a work that emerges as both concrete, and open to renegotiation, because as we continue to plumb the depths of the increasing permeability of bodies and state boundaries, it seems more pertinent than ever to accept that in many ways we are all prosthetic citizens.

Kurzman's assertion that there is no language to bridge the divide between subjective experience and technical specificity (the language of amputees and of prosthetists respectively) is in the end, not altogether dissimilar to Van der Port's informants' exclamations that only a Serb is able to comprehend another Serb. Regardless of whether this is epistemologically true, in the difficult and uneven relationships that are made evident by the attempts for communication, there is space for an ethnography that fills this gulf with technology, morality, ethics, and with language that attempts comprehension. There is writing which augments experience into text. Into these relationships I have thrown the prosthetic limb, which, in this dissertation, has filled the role of a linguistic *prosthesis*, an augmentation to ease understanding.

This dissertation also goes some way toward exploring the moral ambiguities that we are all increasingly faced with as to where the line is drawn between restoration and enhancement, and to explaining why these categories even matter to us. As is the case with so much anthropological research, I shown that multiple readings may yet open toward what we currently call disability (or increasingly - differently abled), but that body modifications are always grounded in an informed turn to the past. However, not only do prosthetic citizenships speak with the force of history, they also show how we are defined by where our limits lie, but that we are more than this alone. They offer the possibility of choice to be a certain kind of citizen. These choices however, are not, the infinite ones of cyborgs, but the mundane bureaucratic and economic navigations of state institutions to achieve a best case scenario. Prosthetic citizens are supported by, and offer support to each other, to greater or lesser extent given their own set of circumstances. Technologies and the daily functioning of the apparatuses of the state may assist or hinder, given the agendas with which an individual currently identifies.

Seen in these ways, prostheses are about the daily, the mundane, the ease at which the body can be taken-for-granted. They invoke mobility, citizenship, and hope for normal life, whatever that may be. This normal life may be classified differently across genders, geopolitical regions, cultures and historical timeframes. What prostheses try to do most of all however is ‘not matter.' They attempt to disappear, even though this is a paradox in itself. They are the catalyst for actions performed, opening possibilities to live life in a way that means something to us, regardless of whether this is ideologically coherent. We have to live after all, and we do so in pragmatic, contradictory, social, and messy ways. It is this that I take away from this dissertation, and this that will linger in my memory.

EPILOGUE (from my field notes 04.03.2009)

I am in the gait clinic with Nikolina, and Bojana, when a couple walk past the door. They wave to Nikolina and she calls out to them to join us. Immediately I see that the woman is an above knee amputee by her walk, though she is unaided. Nikolina moves toward them, quietly greeting and discussing something. Bojana and I turn to examine the legs, and we try to decide when I can fit in time to observe the clinic, and what I hope to find. I hear Nikolina say my name, and as I look up, the man hops on one leg across the room. 'Watch!' Nikolina laughs, 'you see, its just like a shoe that he wears...lower leg amputees have fewer deviations'. The gentleman grins at me, pulling up the leg of his jeans to reveal the tip of a lower leg prosthesis projecting out of the top of his boot, as if sharing a secret. Then they are off, murmuring an apology. The woman is heading to an appointment and they are late.

Nikolina explains the case. Jelana, the woman, has an amputation at the hip. Her slightly stilted walk needs to be understood in light of this. The fact that she walks unaided is impressive on many levels. The further up the leg an amputation occurs, the more organic movement needs to be compensated, and the more compensation one requires to pay for the prosthesis. From a partial amputation of the foot requiring a cosmetic prosthesis, an ankle amputation which shortens the leg so that a prosthetic foot and ankle can be worn, to a lower leg amputation, leaving the knee intact, then an over the knee amputation, and finally, a hip disarticulation. A hip disarticulation requires the prosthesis to replace three joints. This makes it a complicated piece of engineering equipment. Each joint must relate to not only the body but to the other components of the device. Each one of Jelena's prosthetic joints is a mobile one. It takes determination, muscle strength and balance to control and co-ordinate such a prosthesis, and such skills are beyond many of the other patients at the centre. In fact, Bojana whispers to me, lowering the tone of her voice, many of the therapists had doubted her ability to succeed. 'Its just so lucky she fell in love with Jovan' beams Nikolina, looking for all the world like a beneficent agony aunt. She touches my arm, and leans in close, 'That's the best, when the patients fall in love.'

APPENDIX I: Information sheet and consent form

Key Informant Information Sheet

Participant Information Sheet

I am a Ph.D candidate at the University of Edinburgh, Scotland. I am conducting interviews as part of my research in Serbia on physical disability and prosthetics. You have been identified as a possible source of information on the services and products available to amputees or about the prosthetics industry in Serbia and I would like to ask if you would consent to being interviewed for my research.

My research looks at the manufacturing and usage of prosthetics, and the lives of amputees. I am interested in how these is affected by changing import and export laws, the socio-economic situation and general life in Serbia. This interview will be transcribed and coded, and used for the purposes of understanding how the prosthetics industry manages the manufacture and fitting of limbs, as well as how relationships with customers are conducted. [redacted] has kindly agreed to help me in collecting this data and will be conducting some of these interviews on my behalf.

Copies of the transcript of this interview may be held by the University following their information regulations and may be seen by my fellow colleagues. If it is your wish to remain anonymous, I promise not to reveal your identity, and will use a pseudonym in my notes and final ethnography.

If you have any questions about this interview or about my research in general, I am more than happy to answer them. You can reach either [redacted] or myself at the email and mobile numbers listed below. If you consent to be interviewed for the purposes of this assessment then please look over the attached consent form and sign it.

Kind Regards,

Kate Milosavljevic MSc.
PH.D Candidate, University of Edinburgh
0640354943
kate.milosaveljcvic@gmail.com

[redacted]

Key Informant Consent Form

* I have read and understood the information sheet provided about this study, and/or the interviewer explained to me the purpose of the research.

* I understand that my participation in this interview is voluntary.

* I have the right to not answer any question I don't like or to stop the interview and withdraw my answers, at any stage of the interview, without having to explain why.

* I understand that what I say will be kept confidential by the researchers and will only be used for research purposes. My name will not be used in any research reports and nothing will be published that might identify me.

* I understand that if I have any further questions I can contact one of the researchers listed on the information sheet

* I agree to the interview being audio recorded YES / NO

* I agree to some of my comments or statements being quoted in the report, provided that I cannot be identified YES / NO

* I would like to receive an edited copy of my interview transcript YES / NO

* I would like to receive a summary of the key findings from this study YES / NO

If you would like a copy of interview transcript and/or a summary of the key findings, please record your address below.

_____
_____
_____

Declaration:
I, _____ agree to be interviewed.

Signed: _____(Participant) Date: ___/___/___

Signed: _____(Interviewer) Date: ___/___/___

REFERENCES:

Labour force survey 2008. 2009. Belgrade: Statistical Office of the Republic of Serbia.

Adeyi, 0, G Chellaraj, E Goldstein, A Preker, and D Ringold. 1997. "Health Status During Transition in Central and Eastern Europe: Development in Reverse?" *Health Policy and Planning* no. 12 (2):132-145.

Agnew, J. 2009. *Globalization and Sovereignty*. Plymouth: Rowman and Littlefield.

Agovino, T. 2001. "Democracy and Health Care in Serbia." *The Lancet* no. 357:1121-1122.

Antonovsky, A. 1987. Unraveling the Mystery of Health. San Francisco: Jossey-Bass.

Bakic-Hayden, M. 1995. "Nesting Orientalisms: The Case of Former Yugoslavia." Slavic Review no. 54 (4).

Bartlett, W. 2007. "Economic Transition in Serbia Since 2000: Trends and Prospects." *Western Balkans Security Observer* no. 7 (8):29-37.

Beck, U. 1992. *The Risk Society: Towards a New Modernity*. London: Sage.

———. 2005. *Power in the Global Age: a New Global Political Economy*. Cambridge: Polity Press.

Berger, BD, JA Lehrmann, G Larson, L Alverno, and CI Tsao. 2005. "Nonpsychotic, Nonparaphilic Self-Amputation and the Internet." *Comprehensive Psychiatry* no. 46:380-383.

Bergs, M. 2007. "Disability as Embodied Memory? Questions of Identity for the Amputees of Sierra Leone." *Wagadu. Special Issue: Intersecting Gender and Disability Perspectives in Rethinking Postcolonial Identities* no. 4:78-92.

Bosković, A. 2005. "Distinguishing Self From Other: Anthropology and National Identity in Former Yugoslavia." *Anthropology Today* no. 21 (2):8-13.

Bourdieu, P. 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

———. 1984. *Distinction: a Social Critique of the Judgments of Taste*. Translated by R Nice. London: Routledge and Kegan Paul. Original edition, 1979.

———. 1990. *The Logic of Practice*. Translated by R Nice. Cambridge: Polity Press.

Brahm, G jr., and M Driscoll. 1995. *Prosthetic Territories: Politics and Hypertechnologies*. Michigan: University of Michigan Press.

Brantlinger, P. 1998. "Apocalypse 2001: Or, What Happens After Post-history?" *Cultural Critique* no. 39:59-83.

Buchowski, M. 2006. "The Specter of Orientalism in Europe: From Exotic Other to Stigmatized Brother." *Anthropological Quarterly* no. 79 (3):463-482.

Burger, H, C Marincek, and RJ Jaeger. 2004. "Prosthetic Device Provision to Land Mine Survivors in Bosnia and Herzegovina: Outcomes in 3 Ethnic Groups." *Archives of Physical Medicine and Rehabilitation* no. 85:19-28.

Callon, M. 1991. "Techno-Economic Networks and Irreversibility." In *A Sociology of Monsters: Essays on Power, Technology and Domination*, edited by J Law, 132-165. London: Routledge.
Canguilhem, G. 1989. *The Normal and The Pathological*. New York: Zone Books.
Case, A. *Amber Case - Prosthetic Culture* [Video] 2009 [cited 28.10.2012. Available from http://www.youtube.com/watch?v=253TkE2OpCc.
Cerqui, D. 2002. "The Future of Humankind in the Era of Human and Computer Hybridization: An Anthropological Analysis." *Ethics and Information Technology* no. 4 (2):101-108.
Clarke, A, L Mamo, J R Fishman, J K Shim, and J R Fosket. 2003 "Biomedicalization: Technoscientific Transformations of Health, Illness and U.S. Biomedicine." *American Sociological Review* no. 45 (2): 201-214.
Cleland, K. 2010. "Prosthetic Bodies and Virtual Cyborgs." *Second Nature* no. 3:86-101.
Clynes, M, and N Kline. 1960. "Cyborgs and Space." *Astronautics* no. Sept: 26-76.
Collier, S J, and Ong A. 2005. *Global Assemblages: Technology, Politics and Ethics as Anthropological Problems*. Malden MA: Blackwell.
Collin, M. 2004. *This is Serbia Calling*. London: Serpents Tail. Original edition, 2001.
Čolović, I. 2002. *The Politics of Symbol in Serbia*. India: C.Hurst and Co. Original edition, 1997.
Crapanzano, V. 2003. "Reflections on Hope as a Category of Social and Psychological Analysis." *Cultural Anthropology* no. 18 (1):3-32.
Crawford, C. 2007. *Ghost in the Machine: a Genealogy of Phantom-Prosthetic Relations*, University of San Francisco, San Francisco.
Cresswell, T. 2009. "The Prosthetic Citizen: New Geographies of Citizenship." In *Political Power and Social Theory*, edited by D E Davis and J Go, 259-273. Bradford: Emerald Group Publishing Ltd.
Crnobrnja, M. 2007. Economic Developments During Transition in Serbia. In *Working/Research Paper*. Budapest: Centre for Enlargement Studies of the Central European University.
Csordas, T J. 1990. "Embodiment as a Paradigm for Anthropology." *Ethos* no. 18:5-47.
———. 1994. *Embodiment and Experience: The Existential Ground of Culture and the Self*. Cambridge: Cambridge University Press.
Davis McDaid, J. 2002. "How a One-Legged Rebel Lives: Confederate Veterans and Artificial Limbs in Virginia." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm, 119-146. New York and London: New York University Press.
De Laet, M, and A Mol. 2000. "The Zimbabwe Bush Pump: Mechanics of a Fluid Technology." *Social Studies of Science* no. 30 (2):225-263.
Delvecchio Good, M J, B Good, C Schaffer, and S E Lind. 1990. "American Oncology and the Discourse on Hope." *Culture, Medicine and Psychiatry* no. 14:59-79.

Djokic, D. 2003. "Nationalism, History and Identity in the Balkans: An Overview of Recent Histories of Europe's South-East." *The Slavonic and East European Review* no. 81 (3):511-524.
Doidge, N. 2010. *The Brain that Changes Itself: Stories of Personal Triumph From the Frontiers of Brain Science*. New York: Penguin.
Douglas, M. 1966. *Purity and Danger*. New York: Praeger.
Douglas, M, and S Ney. 1998. *Missing Persons: a Critique of Personhood in the Social Sciences*. Berkley: University of California Press.
Drakulic, S. 1994. *The Balkan Express: Fragments from the Other Side of War.* London: Hutchison.
Dreger, A D. 2007. "Jarring Bodies: Thoughts on the Display of Unusual Anatomies." In *Beyond the Body Proper: Reading the Anthropology of Material Life*, edited by M Lock and J Farquhar, 475-485. Durham and London: Duke University Press.
Dunn, E. 2005. "Standards and Person-Making in East Central Europe." In *Global Assemblages: Technology, Politics and Ethics as Anthropological Problems*, edited by A Ong and S J Collier, 173-193. Malden MA, Oxford and Carlton: Blackwell.
Ecks, S. 2005. "Pharmaceutical Citizenship: Antidepressant Marketing and the Promise of Demarginalisation in India." *Anthropology and Medicine* no. 12 (3):239-254.
Escobar, A. 1995. *Encountering Development: The Making and Unmaking of the Third World*. Princeton: Princeton University Press.
Farmer, P. 2003. *Pathologies of Power: Health, Human Rights and the New War on the Poor*. Berkeley and London: University of California Press.
First, M B. 2005. "Desire for Amputation of a Limb: Paraphilia, Psychosis, or a New Type of Identity Disorder." *Psychological Medicine* no. 35:919-928.
Foucault, M 1979. *Discipline and Punish: The Birth of the Prison*. Translated by R Hurley. London: Routledge.
Foucault, M. 1979. *The History of Sexuality*. Translated by R Hurley. London: Penguin. Original edition, 1978.
———. 1989. *The Birth of the Clinic: An archeology of Medical Perception*. London: Routledge.
———. 2006. "Governmentality." In *The Anthropology of the State: a Reader*, edited by A Sharma and A Gupta, 131-143. Oxford and Massachusetts: Blackwell.
Frank, A. 1995. *The Wounded Storyteller: Body Illness and Ethics*. Chicago and London: University of Chicago Press.
———. 1999. "The Body as Territory and as Wonder." In *Health Studies: a Critical and Cross Cultural Reader*, edited by C Samson. Oxford and Massachusetts: Blackwell.
Frank, G. 1986. "On Embodiment: a Case Study of Congenital Limb Deficiency in American Culture." *Culture, Medicine and Psychiatry* no. 10:189-219.
French, L. 2007. "The Political Economy of Injury and Compassion: Amputees on the Thai-Cambodia Border." In *Embodiment and Experience: The Existential Ground of Culture and Self*, edited by T J Csordas, 69-99. Cambridge: Cambridge University Press.

Freud, S. 2002. *Civilization and its Discontents*. London: Penguin. Original edition, 1930.
Gajic-Stevanovic, M, S Dimitrijevic, A Vuksa, and D Jovanovic. 2009. Health Care System and Spending in Serbia From 2004 - 2008. Belgrade: Institute of Public Health of Serbia.
Gallagher, P, D Desmond, and MacLachlan M. 2008. *Psychoprosthetics*. London: Springer-Verlag.
Gallagher, P, and M MacLachlan. 1999. "Psychological Adjustment and Coping in Adults with Prosthetic Limbs." *Behavioral Medicine* no. 25 (3):117-124.
Garfinkel, H. 1984. *Studies in Ethnomethodology*. Cambridge: Polity.
Goffman, E. 1959. *The Presentation of Self in Everyday Life*. New York: Anchor.
———. 1963. *Stigma: Notes on the Management of Spoiled Identity*. New Jersey: Prentice-Hall.
Gottmann, J G. 1969. *Geography of Europe*. New York: Holt McDougal.
Gourevitch, P. 1998. *We Wish to Inform You That Tomorrow We Will Be Killed With Our Families: Stories from Rwanda*. London: Picador.
Green, S. 2007. *Notes from the Balkans: Locating Marginality and Ambiguity on the Greek-Albanian border*. Princeton and Oxford: Princeton university press.
Greenberg, J. 2011. "On the Road to Normal: Negotiating Agency and State Sovereignty in Post-socialist Serbia." *American Anthropologist* no. 113 (1):88-100.
Grosz, E. 1994. "Lived Bodies: Phenomenology and the Flesh." In *Volatile Bodies: Toward a Corporeal Feminism*, 86-111. St Leonards, Australia: Allen and Unwin.
Gupta, A. 2006. "Blurred Boundaries: the Discourse of Corruption, the Culture of Politics and the Imagined State." In *The Anthropology of the State: a Reader*, edited by A Gupta and A Sharma, 211-242. Oxford and Massachusetts: Blackwell.
Gutfleisch, O. 2003. "Peg Legs and Bionic Limbs: the Development of Lower Extremity Prosthetics." *Interdisciplinary Science Reviews* no. 28 (2): 139-148.
Haiken, E. 2002. "Modern Miracles: the Development of Cosmetic Prosthetics." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm, 171-198. New York and London: New York University Press.
Haraway, D 1985. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." *Socialist Review* no. 80:65-108.
———. 1997. *Modest_Witness@Second_Millenium.Femaleman_meets_Oncomouse: Feminism and Technoscience*. New York and London: Routledge.
———. 2000. "An Interview with T.N. Goodeve 'Oncomouse'." In *How Like a Leaf*, 139-147. New York: Routledge.
Hayles, N. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics.* Chicago: Chicago University Press
Heidegger, M. 1962. *Being and Time*. Oxford: Blackwell.

Henare, A. 2005. *Museums, Anthropology and Imperial Exchange*. Cambridge: Cambridge University Press.
Hindess, B. 2005. "The Globalization of Citizenship." In *Challenging Citizenship. Group Membership and Cultural Identity in a Global Age*, edited by S Tan, 63-74. Aldershot: Ashgate Publishing Ltd.
Hjelm, K, K Bard, P Nyberg, and J Apelqvist. 2005. "Beliefs About Health and Diabetes in Men of Different Ethnic Origin." *Journal of Advanced Nursing* no. 50 (1):47-59.
Hjelm, K, P Nyberg, Å Isacsson, and J Apelqvist. 1999. "Beliefs About Health and Illness Essential for Self-Care Practice: a Comparison of Migrant Yugoslavian and Swedish Diabetic Females." *Journal of Advanced Nursing* no. 30 (5):1147-1159.
Ho, M J. 2003. "Migratory Journeys and Tuberculosis Risk." *Medical Anthropology Quarterly* no. 17 (4):442-458.
Hobbes, T. 1651. *Leviathan or The Matter, Forme and Power of a Common Wealth Ecclesiasticall and Civil*. London: Andrew Crooke.
Hogle, L. 1999. *Recovering the Nations Body: Cultural Memory, Medicine and the Politics of Redemption*. London: Rutgers.
———. 2005. "Enhancement Technologies and the Body." *Annual Review of Anthropology* no. 34:695-716.
Horton, S. 2004. "Different Subjects: The Health Care System's Participation in the Differential Construction of Cuban Refugees and Mexican Immigrants." *Medical Anthropology Quarterly* no. 18 (4):472-489.
Howe, D. 2011. "Cyborg and Supercrip: The Paralympics Technology and the (Dis)empowerment of Disabled Athletes." *Sociology* no. 45 (5):868-882.
Ihde, D. 2001. *Bodies in Technology*. Minnesota: University of Minnesota Press.
Ingold, T. 2004. "Culture on the Ground: the World Perceived Through the Feet." *Journal of Material Culture* no. 9 (3):315-340.
———. 2008. "When ANT Meets SPIDER: Social Theory for Arthropods." In *Material Agency: Towards a Non Anthropocentric Approach*, edited by C Knappett and L Malafouris, 209-215. Cambridge and Ontario: Springer.
Ingstad, B, and S Whyte. 1995. *Disability Culture*. Berkeley: University of California Press.
Jackson, M. 1983. "Knowledge of the Body." *Man* no. 18 (2):327-345.
Jain, S S 1999. "The Prosthetic Imagination: Enabling and Disabling the Prosthesis Trope." *Science, Technology, and Human Values* no. 24 (1): 31-54.
Jankovic, S. 2006. "The Burden of Disease and Injury in Serbia." *European Journal of Public Health* no. 17 (1):80-85.
Jansen, S. 2000. "Victims, Underdogs and Rebels, Discursive Practices of Resistance in Serbian Protest." *Critique of Anthropology* no. 20 (4): 393-419.
———. 2003. "Why Do They Hate Us? Everyday Serbian Nationalist Knowledge of Muslim Hatred." *Journal of Mediterranean Studies* no. 13 (2):215-237.
———. 2005. "National Numbers in Context: Maps and Stats in Representations of the Post-Yugoslav Wars." *Identities: Global Studies in Culture and Power* no. 12:45-68.

———. 2009. "After the Red Passport: Towards an Anthropology of the Everyday Geopolitics of Entrapment in the EU's 'Immediate Outside'." *JRAI* no. 15:815-832.
Kacarska, S. 2012. Europeanization Through Mobility: Visa Liberalization and Citizenship Regimes in the Western Balkans. In *CITSEE Working Paper 2012*. Edinburgh: University of Edinburgh.
Kantorowicz, E H. 1997. *The King's Two Bodies: a Study in Mediaeval Political Theology*. New Jersey: Princeton University Press. Original edition, 1957.
Klein, R. 2010. "What is Health and How Do You Get It?" In *Against Health: How Health Became the New Morality*, edited by J Metzel and A Kirkland, 15-25. New York and London: New York University Press.
Kohrman, M. 2003. *Experiences of Disability and Institutional Advocacy in the Making of Modern China*. Berkeley: University of California Press.
———. 2003b. "Why Am I Not Disabled? Making State Subjects, Making Statistics in Post-Mao China." *Medical Anthropology Quarterly* no. 17 (1): 5-24.
———. 2005. *Bodies of Difference: Experiences of Disability and Institutional Advocacy in the Making of Modern China*. Berkeley: University of California Press.
Kunitz, S. 2004. "The Making and Breaking of Yugoslavia and Its Impact on Health." *American Journal of Public Health* no. 94 (11):1894-1904.
Kurzman, S. 2001. "Presence and Prosthesis: A Response to Nelson and Wright." *Cultural Anthropology* no. 16 (3):374-378.
———. 2002. "'"There's No Language For This": Communication and Alignment in Contemporary Prosthetics." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm, 227-248. New York and London: New York University Press.
Lampe, J. 2000. *Yugoslavia as History*. Cambridge: Cambridge University Press.
Langan, C. 2001. "Mobility Disability." *Public Culture* no. 13:459-484.
Latour, B. 1987. *Science in Action: How to Follow Scientists and Engineers Through Society*. Cambridge MA: Harvard University Press.
———. 1988. *The Pasteurization of France*. Cambridge MA and New York: Cambridge University Press.
———. 1993. *We Have Never Been Modern*. Harvard: Harvard University Press. Original edition, 1991.
Law, J, and J Hassard. 1999. *Actor Network Theory and After*. Oxford: Blackwell.
Law, J, and A Mol. 2002. *Complexities: Social Studies of Knowledge Practices*. London: Duke University Press.
Leder, D. 1990. *The Absent Body*. Chicago and London: University of Chicago Press.
Livingston, J. 2008. "Disgust, Bodily Aesthetics, and the Ethics of Being Human in Botswana." *Africa* no. 78 (2):288-307.
Lloyd, E. *The History of Bionics* 2008 [cited 06.02.2012. Available from http://www.healthguideinfo.com/prosthetics-bionics/p9070/.

Lock, M. 1993. "Cultivating the Body: Anthropology and Epistemologies of Bodily Practice." *Annual Review of Anthropology* no. 22 (2):133-155.
———. 2000. "Accounting for Disease and Distress: Morals of the Normal and Abnormal." In *Handbook of Social Studies of Health and Medicine*, edited by G Albrecht, R Fitzpatrick and S Scrimshaw, 259-276. Thousand Oaks: Sage
Martin, E. 1990. "Toward an Anthropology of Immunology: The Body as Nation State." *Medical Anthropology Quarterly* no. 4 (4):410-426.
———. 1992. "The End of the Body?" *American Ethnologist* no. 19 (1):120-138.
Mastilica, M, and S Kusec. 2005. "Croatian Healthcare System in Transition, From the Perspective of Users." *BMJ* no. 331:223-227.
Mauss, M. 1979. "The Notion of Body Techniques." In *Sociology and Psychology Essays* 97-105. London: Routledge and Kegan Paul. Original edition, 1950.
McHugh, J. 2007. Blade Runner. *Wired* 15 (3), http://www.wired.com/wired/archive/15.03/blade_pr.html.
Merleau-Ponty, M. 1962. *Phenomenology of Perception*. Translated by C Smith. London: Routledge.
Metzel, J. 2010. "Introduction: Why “Against Health”?" In *Against Health: How Health Became the New Morality*, edited by J Metzel and A Kirkland, 1-14. New York and London: New York University Press.
Michalko, R. 2002. *The Difference That Disability Makes*. Philadelphia: Temple University Press.
Mihm, S. 2002. "“A Limb Which Shall be Presentable in Polite Society”: Prosthetic Technologies in the 19th Century." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm, 282-299. New York and London: New York University Press.
Milosavljevic, K. 2007. *Bodies of Memory, States of Health: The Practice of Citizenship and Injury in Serbia*, School of Political and Social Sciences, University of Edinburgh, Edinburgh.
Misztal, B. 2000. Goffman’s Concept of the Normal as the Collective Representation of Social Life. In *TASA 2000 Conference: Sociological sites/sights*. Adelaide, Australia.
Mitchell, D T, and S L Snyder. 1997. "Introduction, Disability Studies and the Double Bind of Representation." In *The Body and Physical Difference: Discourses of Disability*, edited by D T Mitchell and S L Snyder. Michigan: University of Michigan Press.
———. 2000. *Narrative Prosthetics: Disability and the Dependencies of Discourse*. Ann Abor: University of Michigan Press.
Miyazaki, H. 2004. *The Method of Hope: Anthropology, Philosophy, and Fijian Knowledge* Stanford: Stanford University Press.
———. 2006. "Economy of Dreams: Hope in Global Capitalism and Its Critiques." *Cultural Anthropology* no. 21 (2):147-172.
Mol, A. 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
———. 2008. *The Logic of Care: Health and the Problem of Patient Choice*. New York and Oxon: Routledge.

Mullins, A. *Is Choosing a Prosthesis So Different than Picking a Pair of Glasses?* 2009 [cited 12.04.2012. Available from http://gizmodo.com/5401408/is-choosing-a-prosthesis-so-different-than-picking-a-pair-of-glasses.
Murphy, R F. 1990. *The Body Silent*. New York and London: W.W.Norton.
Nelson, D. 2001. "Phantom Limbs and Invisible Hands: Bodies, prosthetics and Late Capitalist Identifications." *Cultural Anthropology* no. 16 (3):303-313.
———. 2001b. "Stumped Identities: Body Image, Bodies Politic and the Mujar Maya as Prosthetic." *Cultural Anthropology* no. 16 (3):314-353.
Nguyen, V. 2005. "Antiretroviral Globalism, Biopolitics, and Therapeutic Citizenship." In *Global Assemblages: Technology, Politics and Ethics as Anthropological Problems*, edited by A Ong and S J Collier, 124-144. Malden and Oxford: Blackwell.
Niethammer, L. 1992. *Posthistorie: Has History Come to an End?* London: Verso.
Oksala, J. 2004. "Anarchic Bodies: Foucault and the Feminist Question of Experience." *Hypatia* no. 19 (4):99-122.
Ong, A. 1996. "Cultural Citizenship as Subject Making: Immigrants Negotiate Racial and Cultural Boundaries in the United States." *Current Anthropology* no. 37 (5):737-762.
Ott, K. 2002. "Hard Wear and Soft Tissue: Craft and Commerce in Artificial Eyes." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm. New York and London: New York University Press.
Ott, K, D Serlin, and S Mihm. 2002. *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*. New York and London: New York University Press.
———. 2002. "The Sum of Its Parts: an Introduction to Modern Histories of Prosthetics." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, 1-44. New York and London: New York University Press.
Paterson, K, and B Hughes. 1999. "Disability Studies and Phenomenology: The Carnal Politics of Everyday Life." *Disability & Society* no. 14 (5):597-610.
Perry, H. 2002. "Re-arming the Disabled Veteran: Artificially Rebuilding State and Society in World War One Germany." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm, 45-74. New York and London: New York University Press.
Petersen, A, and D Lupton. 1997. *The New Public Health: Health and Self in the age of Risk*. Sydney: Sage.
Petryna, P. 2002. *Life Exposed: Biological Citizens After Chernobyl*. Princeton and Oxford: Princeton University Press.
———. 2005. "Ethical Variability: Drug Development and Globalizing Clinical Trials." *American Ethnologist* no. 32:183-197.
Prosic-Dvornic, M. 2000. "Serbia: The Inside Story." In *Neighbors at War: Anthropological Perspectives on Yugoslav Ethnicity, Culture and History*, edited by J Halpern and D Kideckel, 316-337. Pennsylvania: Pennsylvania State University.
Rava, N. 2010. Serbia: Elusive Citizenship in an Elusive State. In *CITSEE Working Paper Series 2010*. Edinburgh: University of Edinburgh.

Redmond, T. 1999. "How Do You Eat an Elephant?" *BMJ* no. 319:1652-1653.
Reznick, J S. 2008. "Beyond War and Military Medicine: Social Factors in the Development of Prosthetics." *Arch Phys Med Rehabil* no. 89:188-193.
Rhodes, T, and M Simic. 2005. "Transition and the HIV Risk Environment." *BMJ* no. 331:220-223.
Roberts, H. 2003. "Serbia and Montenegro's State Services Behind Rest of Europe." *The Lancet* no. 361:316-317.
Rose, N. 2006. "Governing "Advanced" Liberal Democracies." In *The Anthropology of the State: a Reader*, edited by A Gupta and A Sharma, 144-163. Oxford and Massachusetts: Blackwell. Original edition, 1996.
Ryan, C J 2009. "Out on a Limb: the Ethical Management of Body Integrity Identity Disorder." *Neuroethics* no. 2:21-33.
Sacks, O. 1984. *A leg to Stand on*. New York: Touchstone Books.
———. 2010. *The Minds Eye*. New York: Random House.
Scarry, E. 1985. *The Body In Pain: the making and unmaking of the world*. New York and Oxford: Oxford University Press.
Scheper-Hughes, N, and M Lock. 1984. "The Mindful Body: a Prolegomenon to Future Work in Medical Anthropology." *Medical Anthropology Quarterly* no. 1:6-41.
Scott, J C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale: Yale University Press.
Serlin, D. 2002. "Engineering Masculinity: Veterans and Prosthetics After World War Two." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm, 45-74. New York and London: New York University Press.
Sharp, L. 2000. "The Commodification of the Body and its Parts." *Annual Review of Anthropology* no. 29:287-238.
Sherman, R A. 1997. *Phantom Pain*. New York: Plenum Press.
Sherman, R A, and C Jones. 1995. The Amputee's Guide to the Amputation and Recovery Process. British Limbless Ex-Servicemen's Association.
Shildrick, M. 1997. "Fabric(ations): On the Construction of the Human Body." In *Leaky Bodies and Boundaries. Feminism, Postmodernism and (Bio)Ethics*, 13-61. London and New York: Routledge.
Smith, M, and J Morra. 2006. *The Prosthetic Impulse: From a Posthuman present to a Biocultural Future*. Cambridge Massachusetts: MIT press.
Sobchack, V. 1995. "Beating the Meat/Surviving the Text, or How to Get Out of This Century Alive." *Body and Society* no. 1 (3/4):205-214.
Srinivasan, R. 2002. "Technology Sits Cross-legged: Developing the Jaipur Foot Prosthesis." In *Artificial Parts, Practical Lives: Modern Histories of Prosthetics*, edited by K Ott, D Serlin and S Mihm. New York and London: New York University Press.
Staples, J. 2003. "Disguise, Revelation and Copyright: Disassembling the South Indian Leper." *Journal of the Royal Anthropological Institute* no. 9 (NS): 295-315.
Steigler, B. 1998. *Technics and Time I: The Fault of Epimetheus*. Stanford: Stanford University Press. Original edition, 1994.
Stevenson, D. 2003. Serbia and Montenegro Health Profile. DFID and UNICEF.

Strathern, M. 1996. "Cutting the Network." *The Journal of the Royal Anthropological Institute* no. 2 (3):517-535.
Šuber, D. 2006. "Myth, Collective Trauma, and War in Serbia: a Cultural-Hermeneutical Appraisal." *Anthropology Matters* no. 8 (1):1-9.
Titchkosky, T. 2003. "Governing Embodiment: Technologies of Constituting Citizens with Disabilities." *Canadian Journal of Sociology* no. 28 (4): 517-542.
Todorova, M. 1997. *Imagining the Balkans*. New York, London: Oxford University Press.
———. 2005. "The Trap of Backwardness: Modernity, Temporality, and the Study of Eastern European Nationalism." *Slavic Review* no. 64 (1): 140-164.
Tosic, O. 1992. "Serbia: Disintegration of the Health-Care System." *The Lancet* no. 340:8814-8815.
———. 2002. "New Serbian Health Minister Appointed at Last." *The Lancet* no. 360:14-19.
Van de Port, M. 1998. *Gypsies, Wars and Other Instances of the Wild: Civilization and Its Discontents in a Serbian Town*. Amsterdam: Amsterdam University Press.
———. 1999. "It Takes a Serb to Know a Serb." *Critique of Anthropology* no. 19 (1):7-30.
Vasiljević, J. 2011. Citizenship and Belonging in Serbia: in the Crossfire of Changing Nationhood Narratives. In *CITSEE working paper 2011*. Edinburgh: University of Edinburgh.
Warren, N, and L Manderson. 2008. "Constructing Hope: Discontinuity and the Narrative Construction of Recovery in the Rehabilitation Unit." *Journal of Contemporary Ethnography* no. 37 (2):180-201.
Webb, D. 2007. "Modes of Hoping." *History of the Human Sciences* no. 20 (3): 65-83.
West, R. 1943. *Black Lamb and Grey Falcon: A Journey Through Yugoslavia*. London: MacMillian.
Wigley, M. 1991. "Prosthetic Theory: the Disciplining of Architecture." *Assemblage* no. 15 (7-29).
Wills, D. 1995. *Prosthesis*. Stanford: Stanford University Press.
Wilmer, F. 2002. *The Social Construction of Man, the State and War: Identity, Conflict and Violence in the Former Yugoslavia*. New York: Routledge.
Winance, M. 2006. "Trying Out the Wheelchair: the Mutual Shaping of People and Devices Through Adjustment." *Science, Technology, and Human values* no. 31 (1):52-72.
Wolf, E. 1982. *Europe and the People Without History*. Berkeley and London: University of California Press.
Wright, E. 2009. My Prosthetic and I: Identity Representation in Bodily Extension. *Forum: University of Edinburgh Journal of Culture and the Arts* 8: online edition.
Wright, M. 2001. "Desire and the Prosthetics of Supervision: A Case of Maquiladora Flexibility." *Cultural Anthropology* no. 16 (3):354-373.

Young, I. 1990. "Throwing Like a Girl: A Phenomenology of Feminine Body Comportment, Motility and Spatiality." In *Throwing Like a Girl and Other Essays In Feminist Philosophy and Social Theory*, 141-159. Bloomington, Indiana: Indiana University Press.

Zivkovic, M. 2000. "Telling Stories of Serbia: Native and Other Dilemmas on the Edge of Chaos." In *Fieldwork Dilemmas: Anthropologists in Post-socialist States*, edited by H G De Soto and N Dudwick, 49-68. Wisconsin and London: University of Wisconsin Press.

———. 2007. "'Mile vs Transition' - A Perfect Informant in the Slushy Swamp of Serbian Politics." *Social Identities* no. 13 (5):597-610.